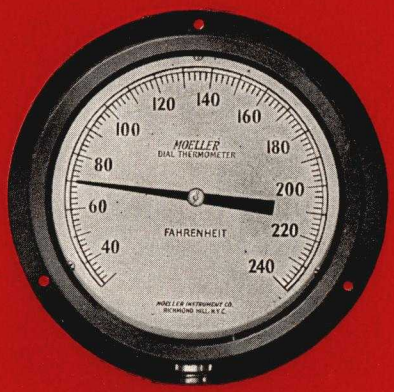
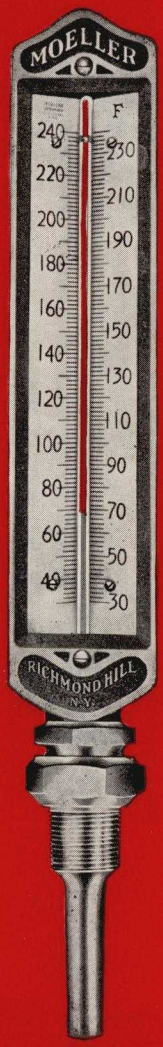
MOELLER

INSTRUMENTS





CATALOG No. 100

MOELLER INSTRUMENT COMPANY
RICHMOND HILL NEW YORK, N. Y.
SINCE 1867

MOELLER INSTRUMENTS

CATALOG No. 100

MOELLER INSTRUMENT COMPANY

132nd STREET & 89th AVENUE, RICHMOND HILL, NEW YORK, N.Y., U.S.A.

PHILADELPHIA · KANSAS CITY · NEW ORLEANS · PITTSBURGH

SAN FRANCISCO · CHICAGO · BOSTON · LOS ANGELES

BUFFALO · MILWAUKEE · DETROIT · ANGOLA, IND.

SINCE 1867

ENTIRE CONTENTS COPYRIGHT 1943 BY MOELLER INSTRUMENT CO., INC., RICHMOND HILL, NEW YORK, U.S.A.

Moeller Glass Red Reading Column for Mercury Thermometers Up to 750° Fahrenheit

WHAT IT IS. MOELLER GLASS is an improved patented form of moulded glass thermometer tubing so made that in the finished thermometer a bright red strip of glass shows ABOVE the mercury column.

This strip of bright easily seen red glass has a "visual width" the same as the mercury column and extends from the top of the tube down to the mercury bulb. See Fig. B.

Covered by U. S. Patent R. E. 18105 and Canada Patent No. 313508.

Fig. A
Angle Form with Separable Socket Connection

A Bright Red color offers the greatest contrast to the silvery gleam of mercury.

CROSS SECTION VIEW OF MOELLER GLASS — See Fig. B. This illustration shows clearly how the different parts are placed in relation to each other. Particular attention is called to the red glass member No. 4 and the opaque reducing shields No. 2, which reduce the visible width of the red glass column to the width of the mercury column.

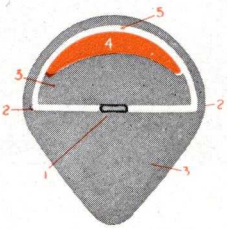


Fig. B
Cross Section View of Moeller Glass

1 Bore (Capillary)
2 Opaque Reducing Shields
3 Clear Glass
4 Red Glass
5 Back Shield

HOW IT WORKS. As the mercury column rises with an increase in temperature it completely hides the bright red glass column up to the prevailing temperature, which means that the LOWER visible end of the red glass column is the prevailing temperature. If the temperature goes lower the mercury column drops accordingly and exposes more of the bright red column.

For example: In Fig. C the mercury stands at 70° F. and the red glass reading column is plainly visible down to 70° F., the prevailing temperature.

HOW TO READ. To read mercury thermometers made with the "MOELLER GLASS" RED READING COLUMN, simply note the bottom end of the red glass column, which will be the top of the mercury column and the correct temperature.

MOELLER GLASS RED READING COLUMN prevents eye strain, and makes possible an exceptionally accurate thermometer easy to read.

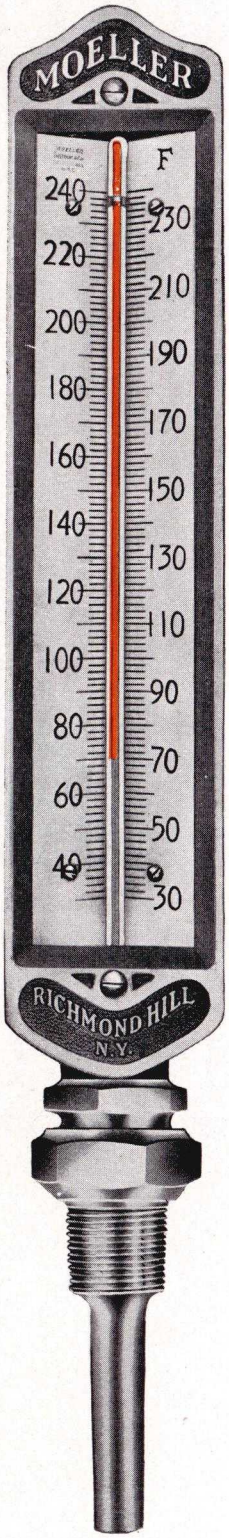
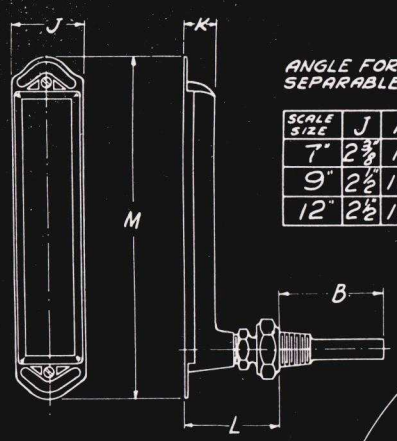


Fig. C
Bronze Case Separable Socket

DIMENSION DRAWING OF MOELLER INDUSTRIAL TYPE MERCURY THERMOMETERS



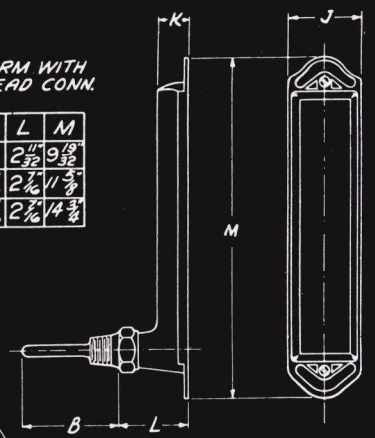
ANGLE FORM WITH SEPARABLE SOCKET.

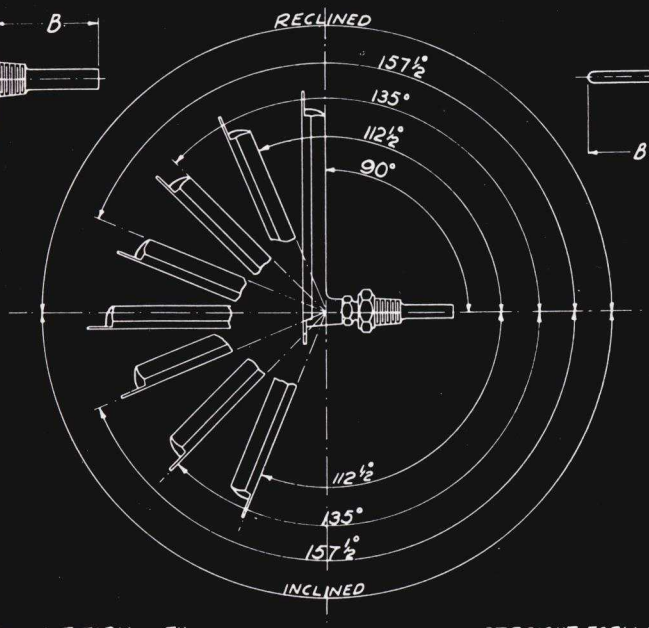
SCALE SIZE	J	K	M	L
7"	2 3/8"	1"	9 19/32"	3"
9"	2 1/2"	1 1/16"	11 5/8"	3 3/16"
12"	2 1/2"	1 1/16"	14 3/4"	3 3/16"

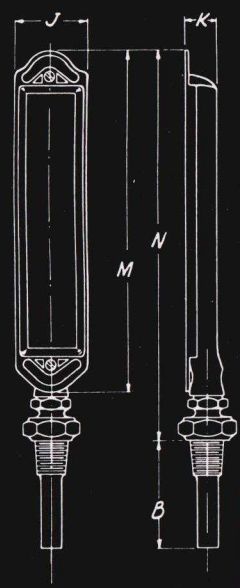
NOTE! UNION CONNECTION WITH HUB HAS SAME OVER-ALL DIMENSIONS AS SEPARABLE SOCKET CONNECTIONS.

ANGLE FORM WITH FIXED THREAD CONN.

SCALE SIZE	J	K	L	M
7"	2 3/8"	1"	2 11/32"	9 19/32"
9"	2 1/2"	1 1/16"	2 7/16"	11 5/8"
12"	2 1/2"	1 1/16"	2 7/16"	14 3/4"







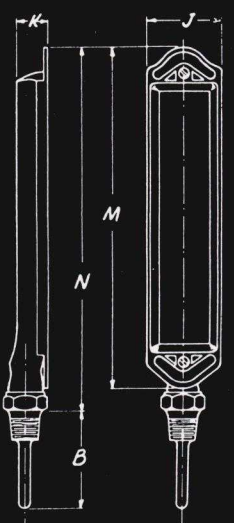
STRAIGHT FORM WITH SEPARABLE SOCKET

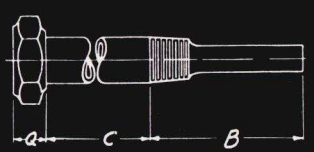
SCALE SIZE	J	K	M	N
7"	2 3/8"	1"	9 19/32"	11 1/8"
9"	2 1/2"	1 1/16"	11 5/8"	13 1/8"
12"	2 1/2"	1 1/16"	14 3/4"	16 1/4"

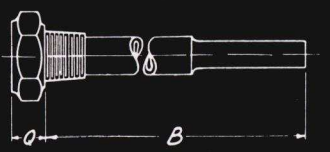
MOELLER INSTRUMENT CO.
RICHMOND HILL, NEW YORK CITY, N. Y.

STRAIGHT FORM WITH FIXED THREAD CONN.

SCALE SIZE	J	K	M	N
7"	2 3/8"	1"	9 23/32"	10 9/32"
9"	2 1/2"	1 1/16"	11 5/8"	12 11/32"
12"	2 1/2"	1 1/16"	14 3/4"	15 1/2"





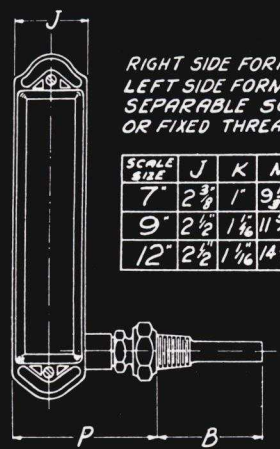


SOCKET NUMBER	Q	C	B
5 1/4" x 1 3/4"	3/4"	1 3/4"	3 1/2"
6" x 2 1/2"	3/4"	2 1/2"	3 1/2"
7" x 2 1/2"	3/4"	2 1/2"	4 1/2"
7" x 3 1/2"	3/4"	3 1/2"	3 1/2"
8" x 2"	3/4"	2"	6"
8" x 2 1/2"	3/4"	2 1/2"	5 1/2"
8" x 4 1/2"	3/4"	4 1/2"	3 1/2"
12" x 2 1/2"	3/4"	2 1/2"	9 1/2"
12" x 4 1/2"	3/4"	4 1/2"	7 1/2"

SEPARABLE SOCKET EXTENSION NECK FORM

SOCKET NUMBER	B	Q
3 1/2"	3 1/2"	3/4"
5 1/2"	5 1/2"	3/4"
6"	6"	3/4"
7"	7"	3/4"
8"	8"	3/4"

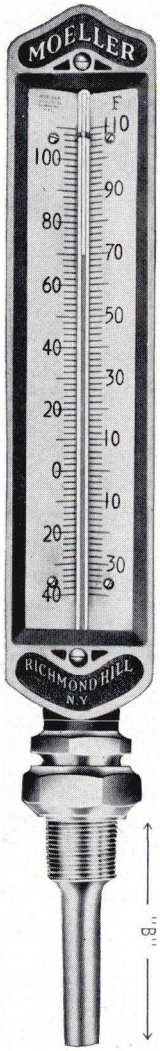
SEPARABLE SOCKET STANDARD FORM



RIGHT SIDE FORM AND LEFT SIDE FORM WITH SEPARABLE SOCKET OR FIXED THREAD CONN.

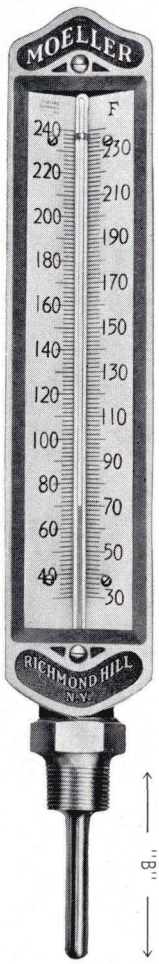
SCALE SIZE	J	K	M	P
7"	2 3/8"	1"	9 19/32"	4 21/32"
9"	2 1/2"	1 1/16"	11 5/8"	4 11/16"
12"	2 1/2"	1 1/16"	14 3/4"	4 11/16"

Mercury-Filled With Moeller Glass Red Reading Column in V-Shape Case With Glass Front



Straight form Separable Socket Connection 3½ "B" stem length

Extra Short 2½" Socket Length ½, ¾ or 1" N.P.T.



Fixed Thread Connection

STRAIGHT STEM
Separable Socket Connection

The thermometer is furnished with a socket (well) i.e., an extra outer stem. The socket should be installed first. The thermometer stem is then inserted in the socket and a tight connection made by turning the union coupling nut to the right, WITHOUT turning the thermometer.

The use of a separable socket permits the removal of the thermometer without emptying the apparatus or pipe.

Socket length "B" Including Thread	N. P. Thread	7" Scale No.	9" Scale No.
3½"	¾"	17003	17103
2½"	*¾"	17002	17102
5"	¾"	17005	17105
6"	¾"	17006	17106
7"	¾"	17007	17107
8"	¾"	17008	17108
12"	1"	17012	17112

*½" N. P. Thread optional.
1" N. P. Thread optional on all socket lengths.

Brass sockets are standard. Steel sockets are optional.
Prices on longer socket lengths on request.

STRAIGHT STEM
Fixed Thread Connection

A fixed thread connection requires that the entire instrument be turned in connecting.

Stem length *"B" Including Thread	N. P. Thread	7" Scale No.	9" Scale No.
3½"	¾"	10003	10103
2¾"	¾"	10002¾	10102¾
6"	¾"	10006	10106
9"	1"	10009	10109
12"	1"	10012	10112

*½" N. P. Thread optional up to 12" stem length.
1" N. P. Thread optional on all stem lengths.

STANDARD FAHRENHEIT RANGES

RANGE		SCALE SIZE 7" Divisions	SCALE SIZE 9" Divisions	RANGE		SCALE SIZE 7" Divisions	SCALE SIZE 9" Divisions
Minus	40-100° F.	2°	2°	Plus	50-400° F.	5°	5°
	0-100° F.	2°	1°	"	50-500° F.	5°	5°
Plus	30-180° F.	2°	2°	"	100-550° F.	5°	5°
"	30-240° F.	2°	2°	"	150-750° F.		5°
"	30-300° F.	2°	2°	"	200-950° F.		10°

*Range — 40 to 110° F. has frost insulation feature.

Mercury-Filled With Moeller Glass Red Reading Column in V-Shape Case With Glass Front

REGULAR ANGLE FORM
(90° REAR ANGLE STEM)

Separable Socket Connection

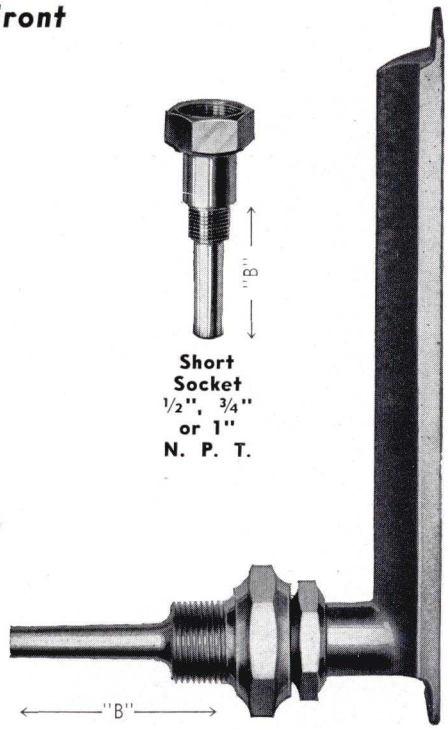
The thermometer is furnished with a socket (well) i.e., an extra outer stem. The socket should be installed first. The thermometer stem is then inserted in the socket and a tight connection made by turning the union coupling nut to the right, WITHOUT turning the thermometer.

The use of a separable socket permits the removal of the thermometer without disturbing the apparatus or pipe.

Socket length "B" Including Thread	N. P. Thread	7" Scale No.	9" Scale No.
3½"	¾"	27003	27103
2½"	*¾"	27002	27102
5"	¾"	27005	27105
6"	¾"	27006	27106
7"	¾"	27007	27107
8"	¾"	27008	27108
12"	1"	27012	27112

*½" N. P. Thread optional on 2½" socket length.
1" N. P. Thread optional on all stem lengths.

Brass sockets are standard. Steel sockets are optional.



Short Socket ½", ¾" or 1" N. P. T.

Separable Socket Connection

REGULAR ANGLE FORM
Fixed Thread Connection

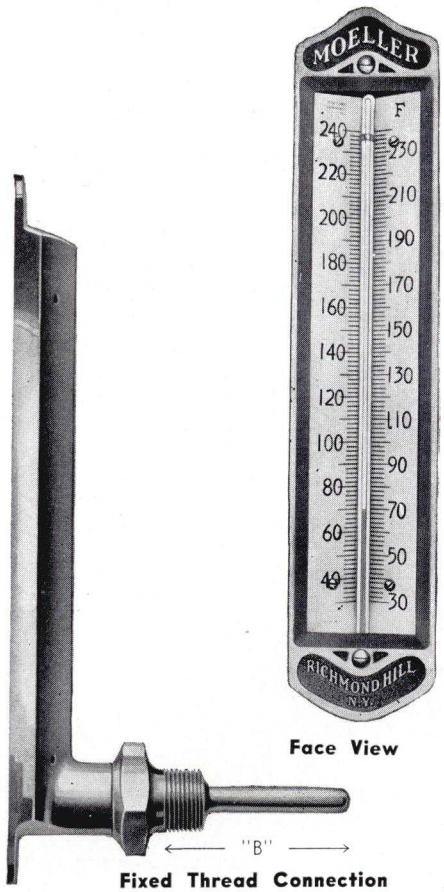
Stem Length "B" Including Thread	N. P. Thread	7" Scale No.	9" Scale No.
3½"	¾"	20003	20103
2¾"	¾"	20002¾	20102¾
6"	¾"	20006	20106
8"	¾"	20009	20109
12"	1"	20012	20112

*½" N. P. Thread optional up to 12" stem length.
*1" N. P. Thread optional on all stem lengths.

STANDARD FAHRENHEIT RANGES

Range		SIZE OF SCALE 7" Divisions	SIZE OF SCALE 9" Divisions	Range		SIZE OF SCALE 7" Divisions	SIZE OF SCALE 9" Divisions
Minus	40 to 100° F.	2°	2°	Plus	50 to 500° F.	5°	5°
	0 to 100° F.	2°	1°	"	100 to 550° F.	5°	5°
Plus	30 to 180° F.	2°	2°	"	150 to 750° F.	5°	5°
"	30 to 240° F.	2°	2°	"	200 to 950° F.		10°
"	30 to 300° F.	2°	2°	"	400 to 850° F.		5°

Scale range Minus 40 to 110° Fahrenheit has frost insulation feature.



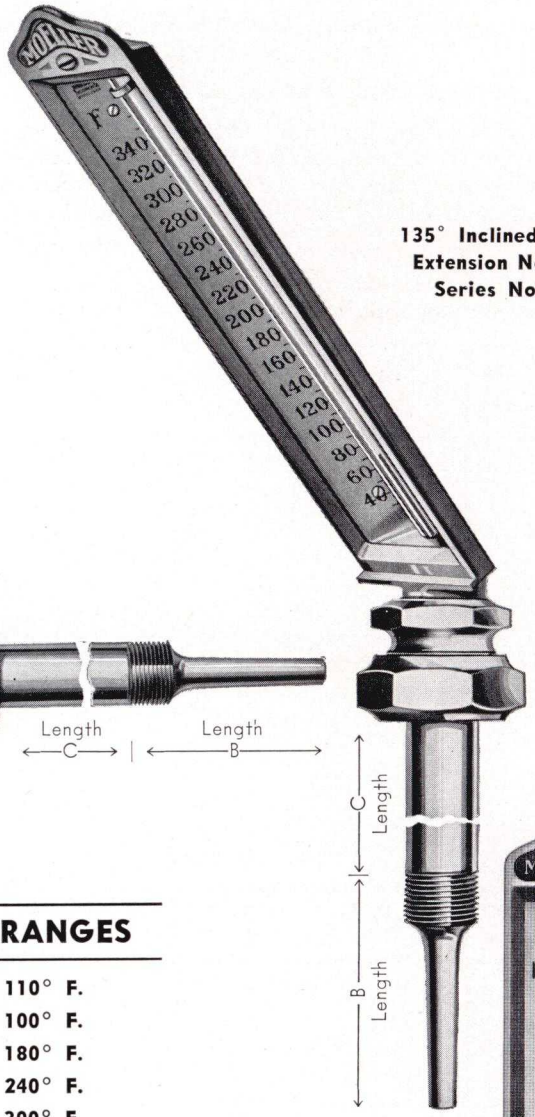
Face View

Fixed Thread Connection

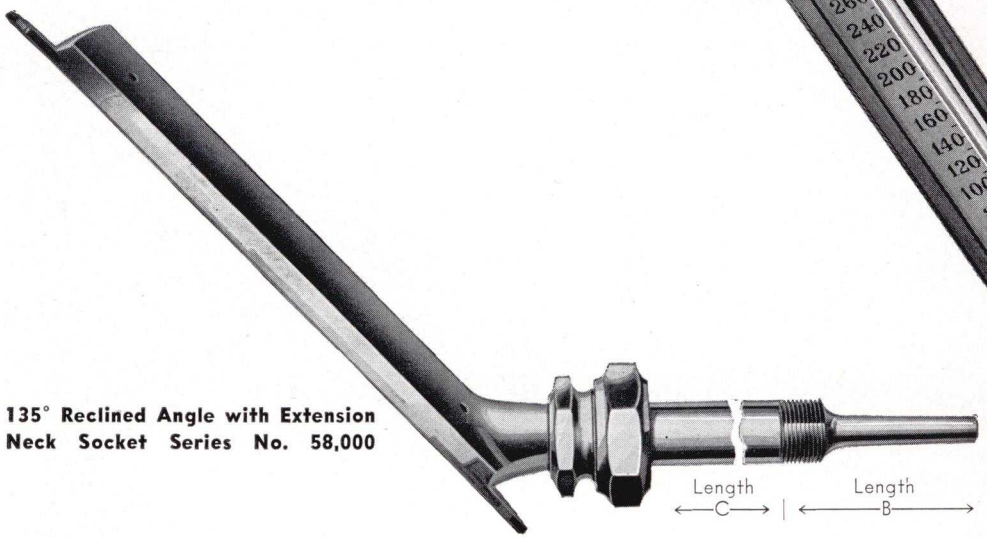
Mercury-Filled With Moeller Glass Red Reading Column
V-Shape Case With Glass Front

EXTENSION NECK
Separable Socket Connection

THERMOMETERS HEREON ILLUSTRATED ARE LISTED ON PAGE 7



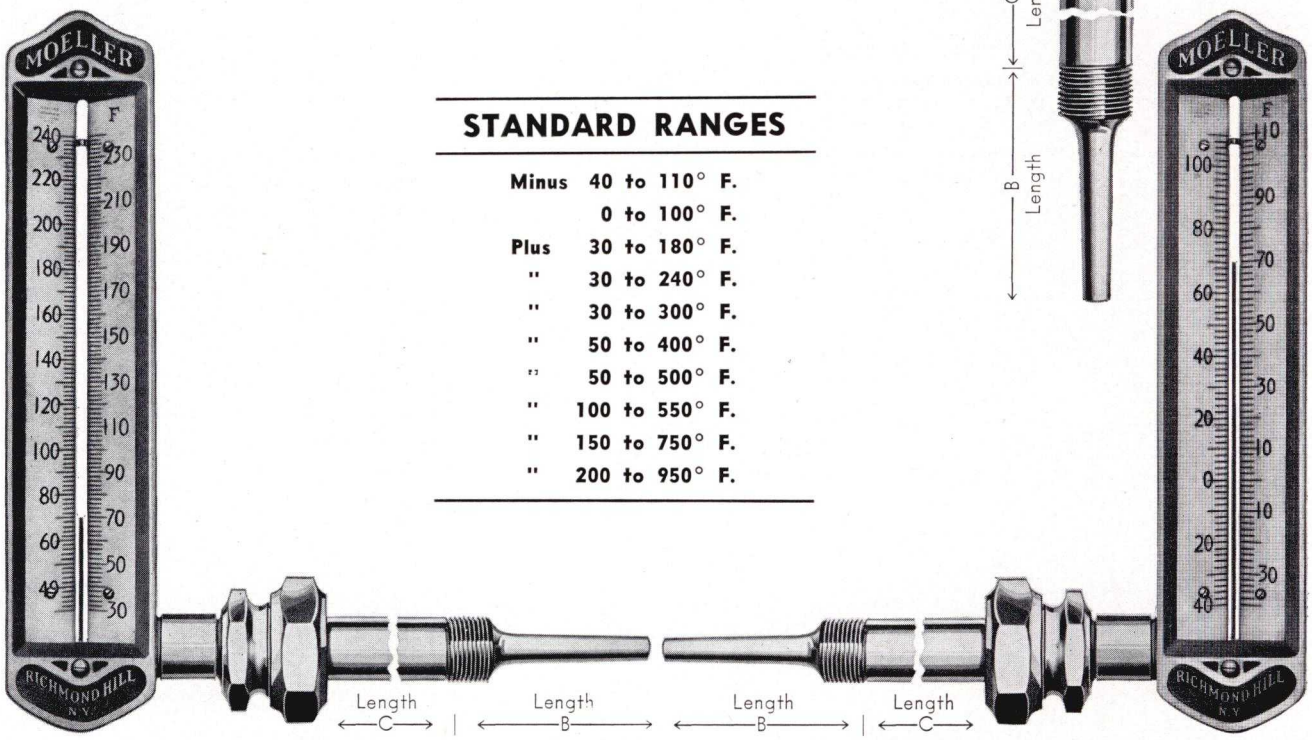
135° Inclined Form with Extension Neck Socket Series No. 68,000



135° Reclined Angle with Extension Neck Socket Series No. 58,000

STANDARD RANGES

Minus	40 to 110° F.
	0 to 100° F.
Plus	30 to 180° F.
"	30 to 240° F.
"	30 to 300° F.
"	50 to 400° F.
"	50 to 500° F.
"	100 to 550° F.
"	150 to 750° F.
"	200 to 950° F.



Right Side Angle Form with Extension Neck Socket Series No. 78,000

Left Side Angle Form with Extension Neck Socket Series No. 88,000

Mercury-Filled With Moeller Glass Red Reading Column in V-Shape Case With Glass Front

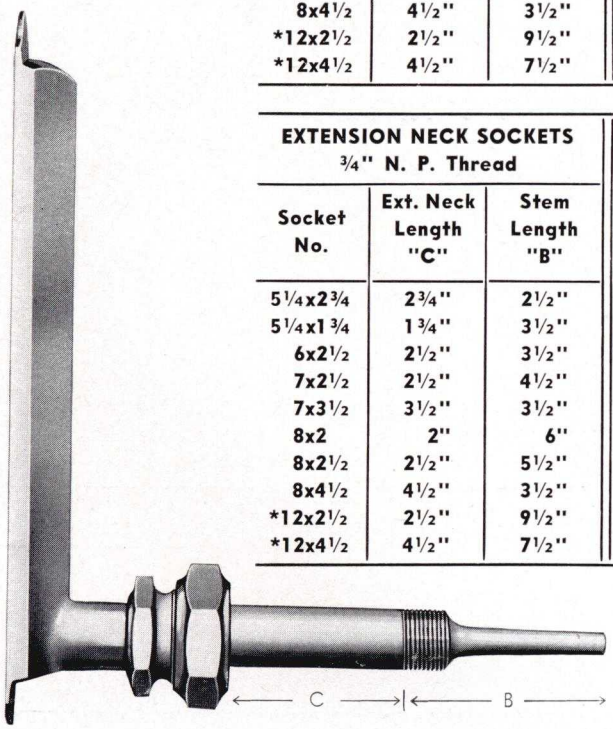
EXTENSION NECK SEPARABLE SOCKET CONNECTION

EXTENSION NECK SOCKETS ¾" N. P. Thread			STRAIGHT STEM Series No. 18,000		REGULAR ANGLE FORM Series No. 28,000	
Socket No.	Ext. Neck Length "C"	Stem Length "B"	7" Scale No.	No. 9" Scale	7" Scale No.	9" Scale No.
5¼x2¾	2¾"	2½"	18004	18104	28004	28104
5¼x1¾	1¾"	3½"	18005	18105	28005	28105
6x2½	2½"	3½"	18007	18107	28007	28107
7x2½	2½"	4½"	18009	18109	28009	28109
7x3½	3½"	3½"	18011	18111	28011	28111
8x2	2"	6"	18013	18113	28013	28113
8x2½	2½"	5½"	18015	18115	28015	28115
8x4½	4½"	3½"	18017	18117	28017	28117
*12x2½	2½"	9½"	18019	18119	28019	28119
*12x4½	4½"	7½"	18021	18121	28021	28121

EXTENSION NECK SOCKETS ¾" N. P. Thread			135° RECLINED ANGLE Series No. 58,000		135° INCLINED ANGLE Series No. 68,000	
Socket No.	Ext. Neck Length "C"	Stem Length "B"	7" Scale No.	9" Scale No.	7" Scale No.	9" Scale No.
5¼x2¾	2¾"	2½"	58004	58104	68004	68104
5¼x1¾	1¾"	3½"	58005	58105	68005	68105
6x2½	2½"	3½"	58007	58107	68007	68107
7x2½	2½"	4½"	58009	58109	68009	68109
7x3½	3½"	3½"	58011	58111	68011	68111
8x2	2"	6"	58013	58113	68013	68113
8x2½	2½"	5½"	58015	58115	68015	68115
8x4½	4½"	3½"	58017	58117	68017	68117
*12x2½	2½"	9½"	58019	58119	68019	68119
*12x4½	4½"	7½"	58021	58121	68021	68121

EXTENSION NECK SOCKETS ¾" N. P. Thread			RIGHT SIDE ANGLE FORM Series No. 78,000		LEFT SIDE ANGLE FORM Series No. 88,000	
Socket No.	Ext. Neck Length "C"	Stem Length "B"	7" Scale No.	9" Scale No.	7" Scale No.	9" Scale No.
5¼x2¾	2¾"	2½"	78004	78104	88004	88104
5¼x1¾	1¾"	3½"	78005	78105	88005	88105
6x2½	2½"	3½"	78007	78107	88007	88107
7x2½	2½"	4½"	78009	78109	88009	88109
7x3½	3½"	3½"	78011	78111	88011	88111
8x2	2"	6"	78013	78113	88013	88113
8x2½	2½"	5½"	78015	78115	88015	88115
8x4½	4½"	3½"	78017	78117	88017	88117
*12x2½	2½"	9½"	78019	78119	88019	88119
*12x4½	4½"	7½"	78021	78121	88021	88121

Straight Form Series No. 18000



Regular Angle Form Series No. 28000

¾" N. P. Thread is standard up to 8" lengths. 1" N. P. Thread optional.

Brass sockets are standard. Steel sockets are optional.

On * Sockets Nos. 12 x 2½ and 12 x 4½ 1" N.P. thread is standard.

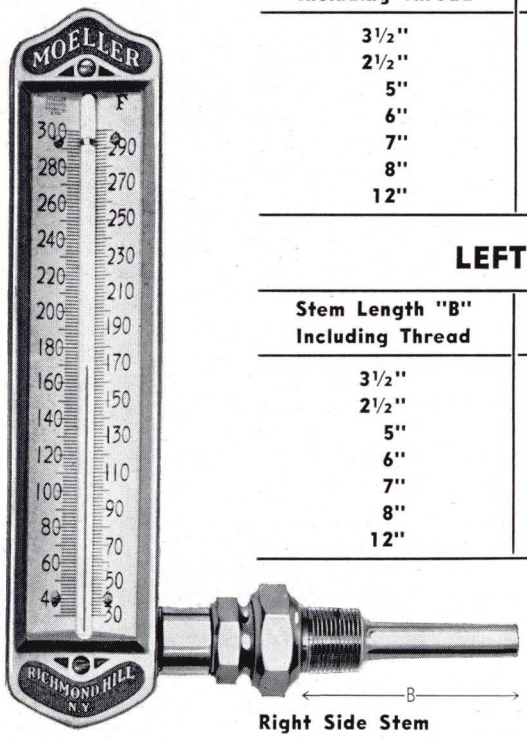
Mercury-Filled With Moeller Glass Red Reading Column in V-Shape Case With Glass Front Separable Socket Connection

RIGHT SIDE ANGLE FORM

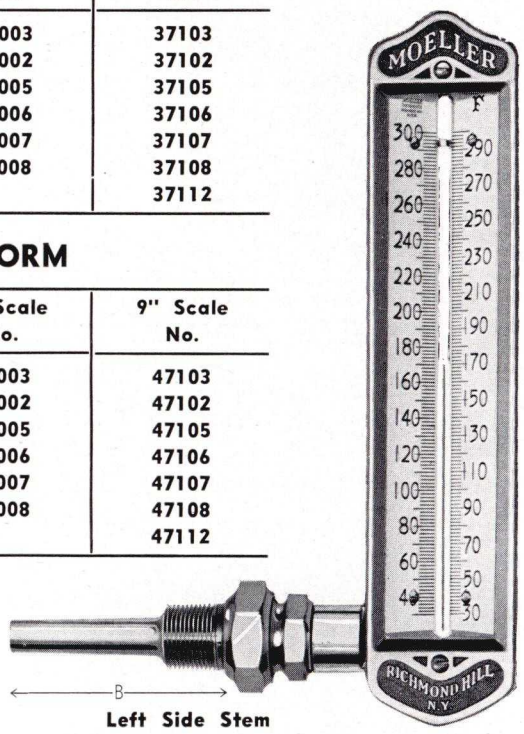
Stem Length "B" Including Thread	N. P. Thread	7" Scale No.	9" Scale No.
3½"	¾"	37003	37103
2½"	*¾"	37002	37102
5"	¾"	37005	37105
6"	¾"	37006	37106
7"	¾"	37007	37107
8"	¾"	37008	37108
12"	1"		37112

LEFT SIDE ANGLE FORM

Stem Length "B" Including Thread	N. P. Thread	7" Scale No.	9" Scale No.
3½"	¾"	47003	47103
2½"	*¾"	47002	47102
5"	¾"	47005	47105
6"	¾"	47006	47106
7"	¾"	47007	47107
8"	¾"	47008	47108
12"	1"		47112

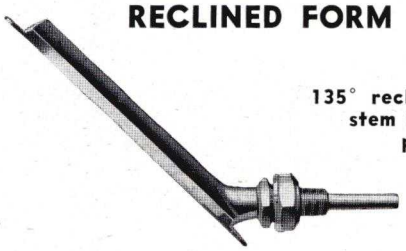


Right Side Stem



Left Side Stem

RECLINED FORM 135° ANGLE

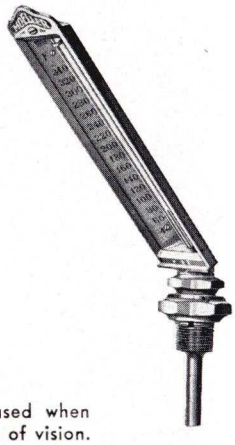


135° reclined form with stem in horizontal position

WHEN TO USE: The reclined form otherwise known as the reclined stem and oblique form, should be used when the stem is inserted in a horizontal position above the line of vision, and also when inserted below the line of vision with the stem in a vertical position. Regularly furnished with an angle of 135° between back of scale case and stem.

Stem Length "B" Including Thread	N. P. Thread	7" Scale No.	9" Scale No.
3½"	¾"	57003	57103
2½"	*¾"	57002	57102
5"	¾"	57005	57105
6"	¾"	57006	57106
7"	¾"	57007	57107
8"	¾"	57008	57108
12"	¾"		57112

INCLINED FORM 135° ANGLE



135° inclined form with stem in vertical position

INCLINED FORM

WHEN TO USE: The inclined form is used when socket is inserted vertically above the line of vision.

Stem Length "B" Including Thread	N. P. Thread	7" Scale No.	9" Scale No.
3½"	¾"	67003	67103
2½"	*¾"	67002	67102
5"	¾"	67005	67105
6"	¾"	67006	67106
7"	¾"	67007	67107
8"	¾"	67008	67108
12"	¾"		67112

*½" N. P. Thread optional on 2½" sockets only.

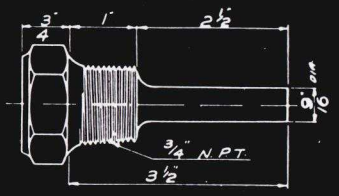
1" N. P. Thread on all socket lengths optional.

Brass sockets are standard. Steel sockets optional.

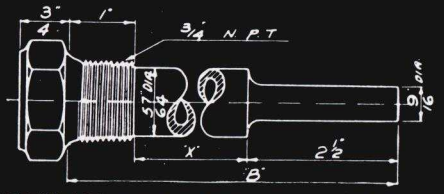
MOELLER SEPARABLE SOCKETS

For Industrial Type, Dial and Recording Thermometers

Sockets are Regularly of Brass, Steel Sockets are Optional

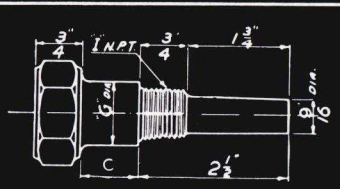


STANDARD FORM SOCKET No. 3½—3½" STEM



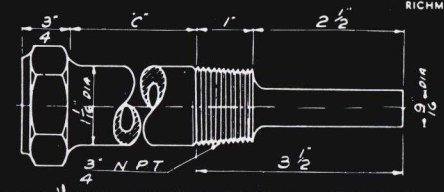
STANDARD FORM LONG STEM SOCKETS

Catalogue No.	X	B Stem Length Including Thread
5¼"	1⅜"	5¼"
6"	2½"	6"
7"	3½"	7"
8"	4½"	8"
12"	8½"	12"



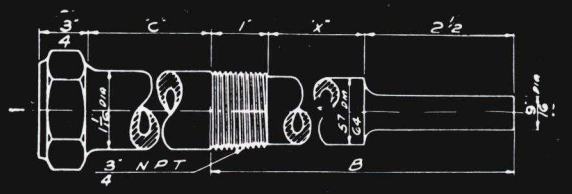
SHORT STEM EXTENSION NECK SOCKETS

Catalogue No.	I=N. P. Thread	G	C=Ext. Neck
3½x1-A	½"	1-1/16"	1"
3½x1-B	¾"	1-1/16"	1"
3½x1-C	1"	1-5/16"	1"
5¼x2¾-A	½"	1-1/16"	2¾"
5¼x2¾-B	¾"	1-1/16"	2¾"
5¼x2¾-C	1"	1-5/16"	2¾"



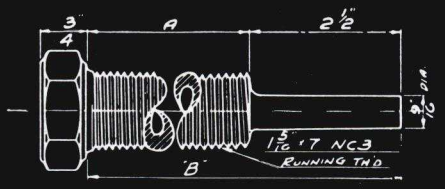
EXTENSION NECK SOCKETS—3½" STEM

Catalogue No.	C
5¼x1¾	1¾"
6x2½	2½"
7x3½	3½"
8x4½	4½"



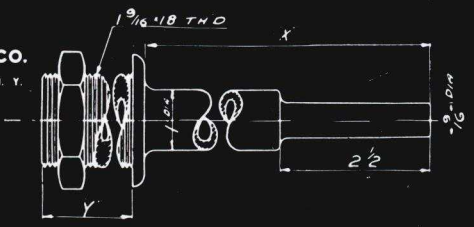
EXTENSION NECK LONG STEM SOCKETS

Cat. No.	C Ext. Neck	X	B Stem Length Including Thread
7x2½	2½"	1"	4½"
8x2	2"	2½"	6"
8x2½	2½"	2"	5½"
12x2½	2½"	6"	9½"
12x4½	4½"	4"	7½"



WOOD THREAD SOCKETS

Catalogue No.	A	B Stem Length
15	2⅜"	5¼"
16	3½"	6"



BACTERIA PROOF SOCKETS

Catalogue No.	X	Y
20	3-1/16"	1"
21	4-3/16"	1½"
22	5-1/16"	1½"

MOELLER INSTRUMENT CO.
RICHMOND HILL, NEW YORK CITY, N. Y.

MOELLER INDUSTRIAL THERMOMETERS

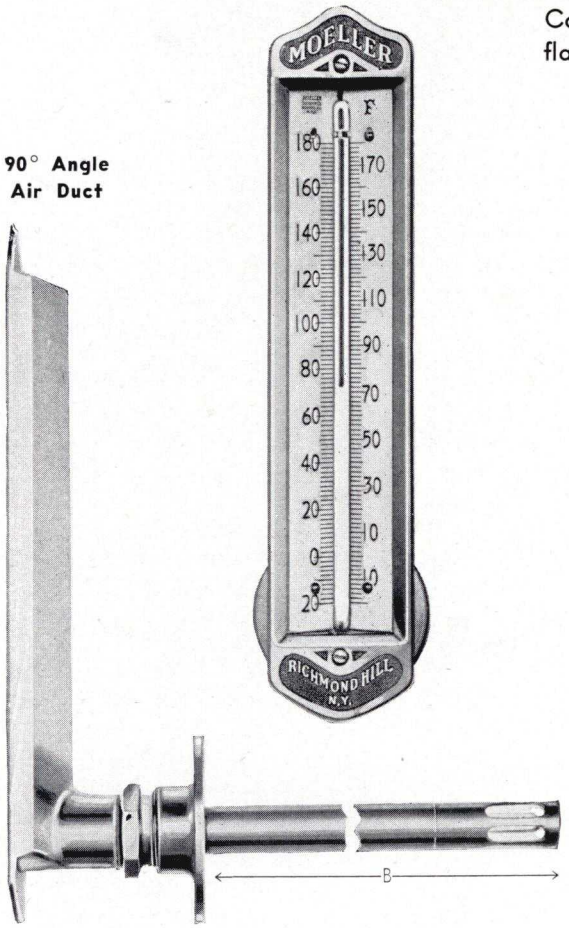
For Air Ducts, Scrubbers, Preheaters, Dry Kilns, Ovens, Etc.

STANDARD SPECIFICATIONS: Mercury filled with Moeller Glass Red Reading Column in V-shape case with glass front, union connection bronze flange, brass stem with slotted guard protecting the mercury bulb.

STANDARD RANGES

Minus 20 to 120° F.
" 20 " 180° F.
0 " 160° F.
0 " 220° F.

90° Angle Air Duct

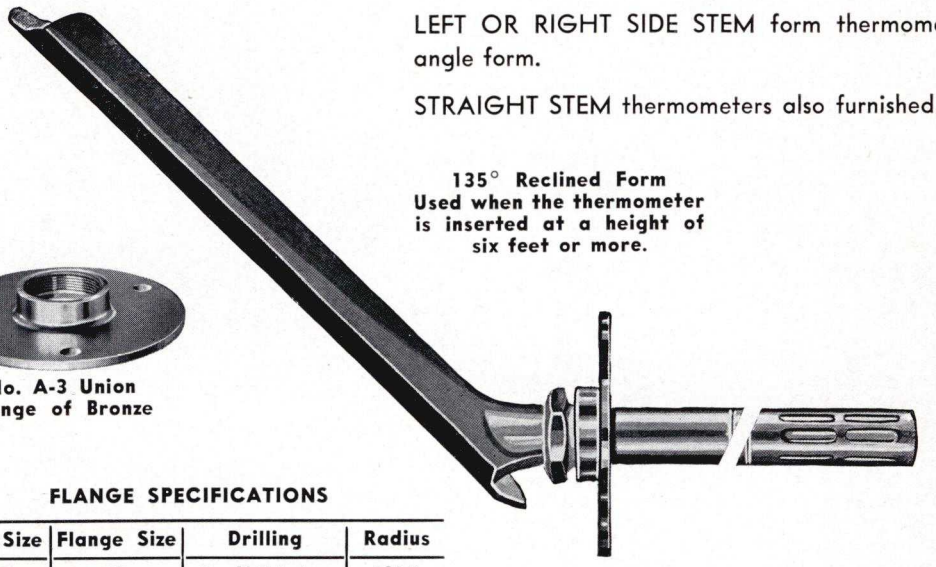


Form	Stem Length "B" Below Flange A-3	7" Scale No.	9" Scale No.
Regular 90° Angle Form	6"	25006	25106
	9"	25009	25109
	12"	25012	25112
	18"	25018	25118
			25124
135° Reclined Form is Standard	6"	55006	55106
	9"	55009	55109
	12"	55012	55112
	18"	55018	55118

LEFT OR RIGHT SIDE STEM form thermometer list at same price as angle form.

STRAIGHT STEM thermometers also furnished. See price list.

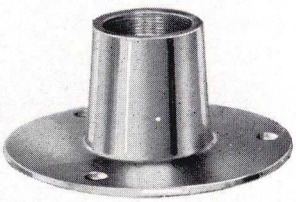
135° Reclined Form Used when the thermometer is inserted at a height of six feet or more.



No. A-3 Union Flange of Bronze

FLANGE SPECIFICATIONS

Scale Size	Flange Size	Drilling	Radius
9"	3"	2—¼" holes	1⅛"
7"	3"	2—¼" holes	1⅛"



No. A-4 Bronze Flange with 2" Extension Neck

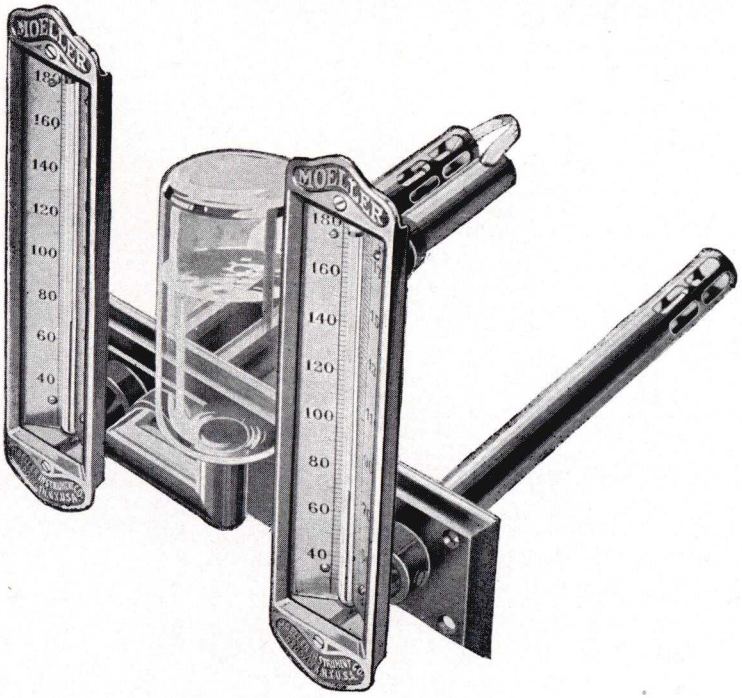
Supplied without extra cost instead of a standard flange. Used where there is insulation on duct, etc.

NOTE: Where extension stem flange is used, stem lengths are reduced 2" from lengths above specified.

MOELLER BRONZE CASE HYGROMETERS

For Air Ducts, Dryers, Kilns, Generator Air Coolers, Etc.

Mercury Filled With Moeller Glass Red Reading Column



TYPE No. 665 ANGLE FORM

STANDARD SPECIFICATIONS

The INSTRUMENT consists of two mercury thermometers mounted in a V-shape case with heavy glass front. Stem lengths to suit. A 16 ounce water reservoir is furnished, also a Moeller easy reading humidity chart, suitably framed.

STANDARD SCALE RANGES

Plus 30 to 120° F. and Plus 30 to 180° F.

Other ranges also furnished.

RECLINED FORM, TYPE 670. Where the hygrometer is to be mounted at an elevation of six feet or more above the floor, it will be easier to read if made so that the case reclines forward at an angle of 45°. In ordering, specify 135° reclined form type No. 670.

ADVANTAGES

Rugged and permanently accurate, as there are no delicate pointers or levers to move.

The 16-ounce water reservoir makes frequent filling unnecessary.

A new wick easily installed from the outside of apparatus.

TO INSTALL

Make two inch hole to admit the wet bulb stem and water carrying pipe. Dry bulb stem takes a 1" hole. Then attach the flat metal frame by means of four bolts or screws. Next fill water reservoir and pipe.

CAUTION. See that the stems are inserted in an exact horizontal position.

AUTOMATICALLY SUPPLIED WATER RESERVOIR can be furnished by a float control. This assures proper water supply to the wet bulb at all times. A 1/8" N.P.T. union connection at reservoir with a 1/8" needle valve for water supply line is included, but no piping.

MOELLER OUTDOOR THERMOMETERS →

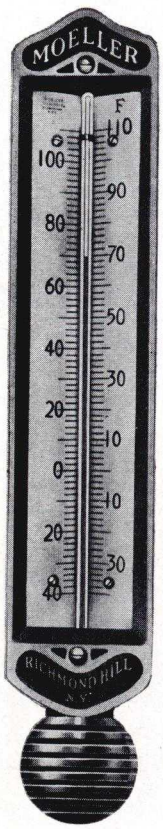
STANDARD SPECIFICATIONS

No. 849. Mercury filled tube with Moeller Glass Red Reading column. 9" silvered scale in V-shape case with heavy glass front.

STANDARD RANGE. Minus 40 to 110° F.

Note: other ranges can be furnished.

MOUNTING BRACKETS (not shown in illustration) are attached to back of case.



No. 849

MOELLER INSTRUMENT COMPANY, RICHMOND HILL, NEW YORK CITY, N. Y.

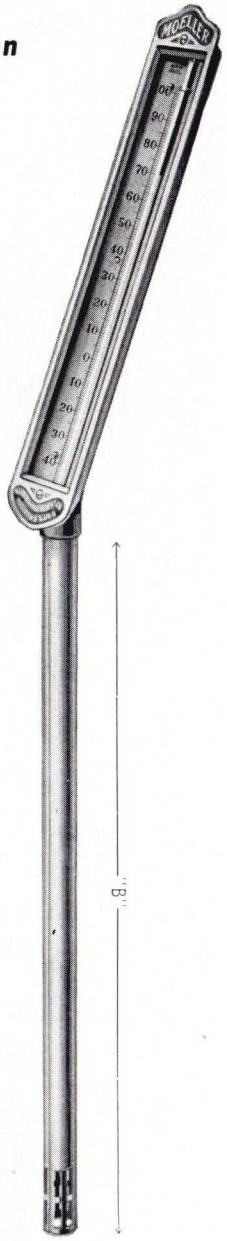
Mercury-Filled With Moeller Glass Red Reading Column in V-Shape Case With Glass Front

FOR BRINE TANKS

9" SCALE WITH HEAVY BRASS STEM AND GUARD
RANGE — MINUS 40 TO 100° FAHRENHEIT

No.	Form	Stem Length "B"	
0818-18	157½° Reclined Form	18"	A No. A-11 adjustable bronze flange is furnished with each thermometer
0818-24		24"	
0818-30		30"	
0818-36		36"	
0818-42		42"	
0821-24	Straight Form	24"	
0821-30		30"	
0821-36		36"	
0821-42		42"	

No. A-3
Union Flange



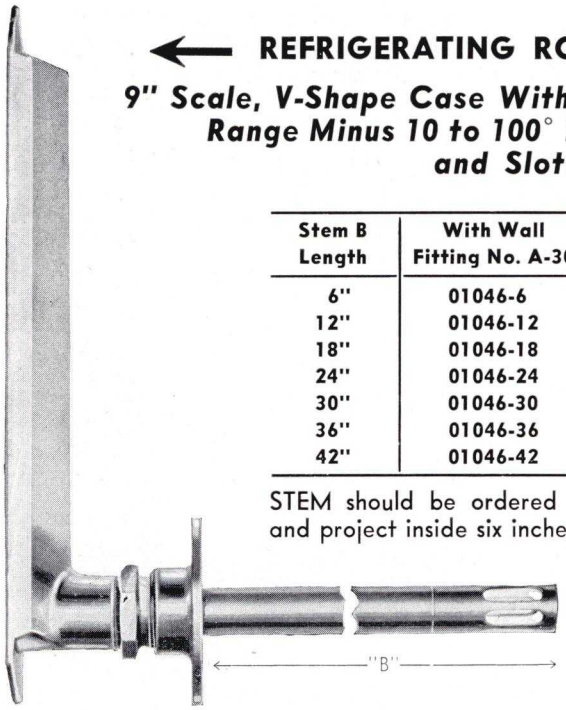
157½° Reclined Form Brine Tank

← REFRIGERATING ROOM THERMOMETERS

9" Scale, V-Shape Case With Glass Front, Union Connection Range Minus 10 to 100° Fahrenheit, With Bare Bulb and Slotted Guard.

Stem B Length	With Wall Fitting No. A-30	Stem B Length	With Union Flange No. A-3
6"	01046-6	6"	01045-6
12"	01046-12	12"	01045-12
18"	01046-18	18"	01045-18
24"	01046-24	24"	01045-24
30"	01046-30	30"	01045-30
36"	01046-36	36"	01045-36
42"	01046-42	42"	01045-42

STEM should be ordered long enough to go thru wall and project inside six inches or more.

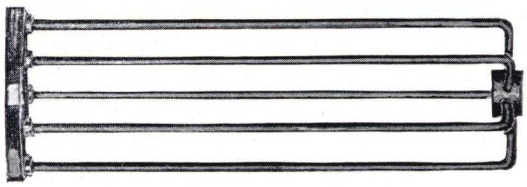


Nos. 01405-6 to 01045-42

No. A-11
Adjustable Flange

STEM GUARD

Stem Guard No. A-32 is used when there is a possibility of damage to the thermometer stem. The guard is made of a heavy galvanized iron flange 5" in diameter, to which is attached six ⅜" galvanized steel rods joined together at the outer end. Flange is drilled with three ⅜" holes for bolting to inside wall.



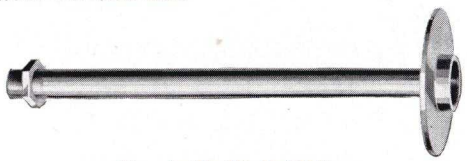
No. A-32 Stem Guard

OPTION

The guard can also be furnished so it can be screwed directly on the end of the Wall Fitting No. A-30 instead of attaching to inside wall. If so ordered specify Guard No. A-33.

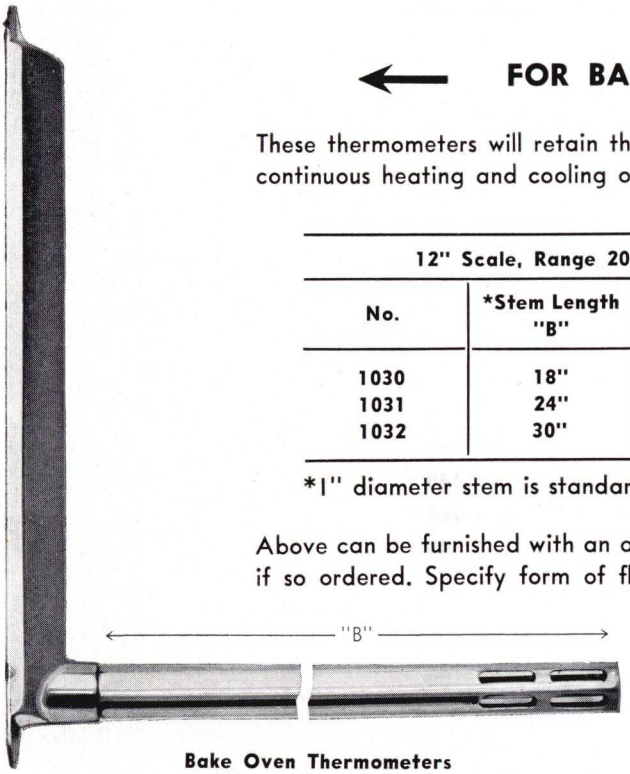
WALL FITTING

No. A-30 Wall Fitting as illustrated, is made of a 5" cast flange, threaded to fit the union swivel nut on the thermometer. To this flange is attached a heavy iron pipe of suitable length threaded at end to hold the lock-nut.



No. A-30 Wall Fitting

Mercury-Filled With Moeller Glass Red Reading Column in V-Shape Case With Glass Front



Bake Oven Thermometers
No. 1030 to 1035

← FOR BAKE OVENS

These thermometers will retain their accuracy indefinitely under the continuous heating and cooling of the oven.

12" Scale, Range 200 to 750° Fahrenheit			
No.	*Stem Length "B"	No.	*Stem Length "B"
1030	18"	1033	36"
1031	24"	1034	42"
1032	30"	1035	48"

*1" diameter stem is standard.

Above can be furnished with an adjustable 3" round, or oval flange, if so ordered. Specify form of flange and drilling wanted, if any.

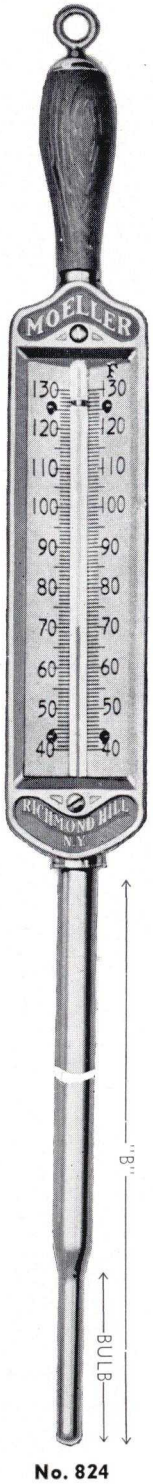
MOELLER DOUGH TESTING THERMOMETERS →

The V-shape case is fitted with a removable frame having a non-breakable crystal, keeping the scale clean and easy to read. STEM is made of stainless steel, insuring a clean, sanitary, corrosion-proof instrument.

BULB is of very sensitive construction, so that any rise or drop in temperature is instantly shown.

TUBE is mercury filled with Moeller Glass Red Reading Column, which combined with a silvered scale, assures an easy reading instrument.

No.	Scale	Stem Length "B"	Scale Range	Divisions
826	7"	10"	Plus 40 to 110° F.	1°
824	7"	10"	" 40 to 130° F.	1°



No. 824

FOR FLUE GAS TEMPERATURES

Moeller flue gas thermometers form a valuable check on fuel consumption by noting temperature of waste gases escaping from the stack.

STANDARD SPECIFICATIONS

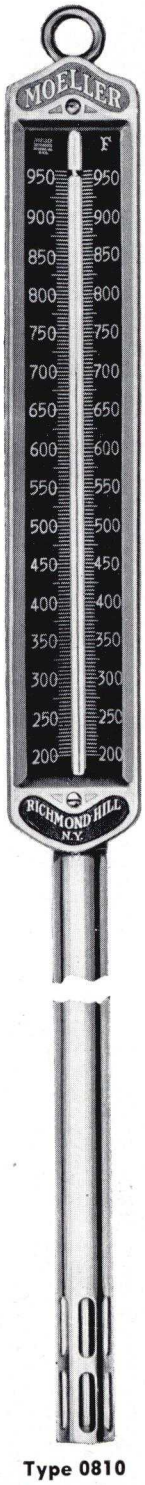
9" V-Shape Case with Glass Front, Heavy Steel Stem, range 200 to 950° F.

Standard stem lengths, 12", 18", 24", 30", 36".

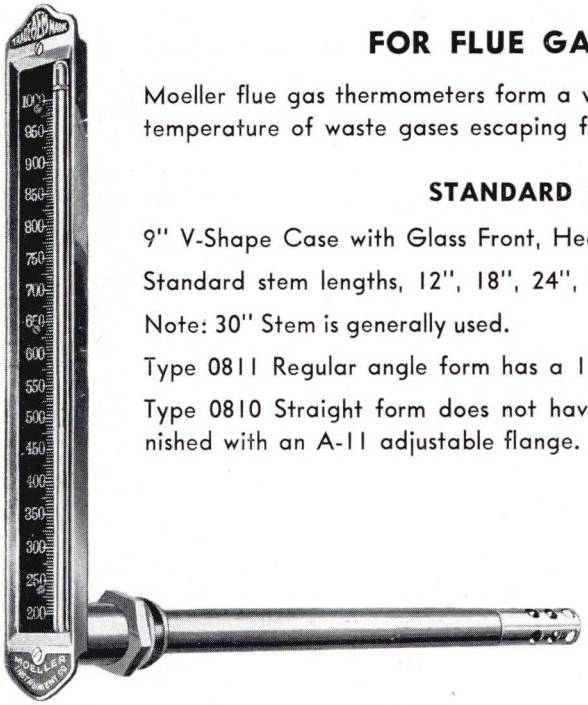
Note: 30" Stem is generally used.

Type 0811 Regular angle form has a 1" N.P. Thread fixed connection.

Type 0810 Straight form does not have any threaded connection, but can be furnished with an A-11 adjustable flange.



Type 0810
Straight Stem
Flue Gas



Type 0811
Angle Flue Gas Thermometer 1" N. P. Thread

No. A-11
Adjustable Flange

MOELLER THERMO-VACUUM GAUGE →

For Exhaust of Turbines, Etc.

Furnished in V-Shape case with glass front, ¾" N.P. Thread, brass or steel separable socket, standard scale range plus 30 to 160° Fahrenheit and corresponding absolute pressure in inches of mercury.

9" Scale

No.	Stem Length	Form
17803½	3½"	Straight
17806	6"	Straight
17903½	3½"	Angle
17906	6"	Angle

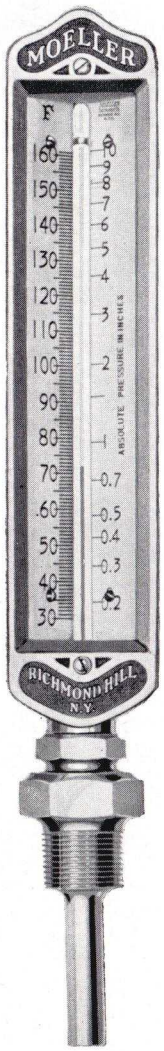
"U" Gauge

← MOELLER "U" GAUGES

Used for measuring draft, vacuum, and low gas and air pressures, in inches of water.

Gauges are mounted in a substantial plated brass case. Illustration shows hose connection at top and a zero adjusting screw at the bottom. For ⅛" thread connection, remove hose fitting.

Type No.	Size of Scale	Range
1211	4"	2-0-2"
1211-A	6"	3-0-3"
1211-B	8"	4-0-4"
1211-C	12"	6-0-6"



No. 17903½
Thermo-
Vacuum Gauge

MOELLER MERCURY COLUMN ABSOLUTE PRESSURE GAUGE

This instrument is independent of barometric pressure or changes of mercury level in the cistern. It gives a direct accurate reading of the absolute pressure which may exist in any apparatus under a vacuum.

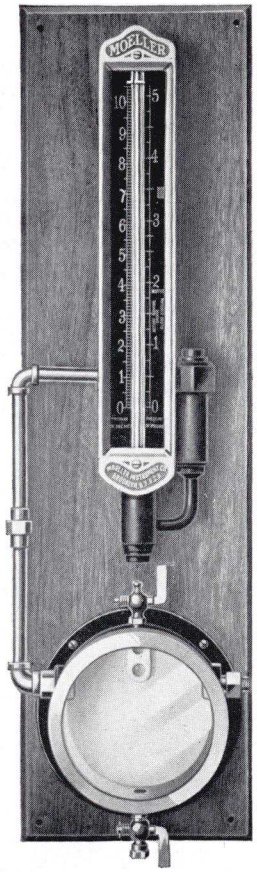
No. 1248 — In a V-shape case with removable glass front. Standard scale 0 to 10" and 0 to 5 lbs. A catchall as illustrated, is included. Gauge is mounted on an oak panel 7¾x27½".

No. 1247 — Same as 1248 but without catchall.

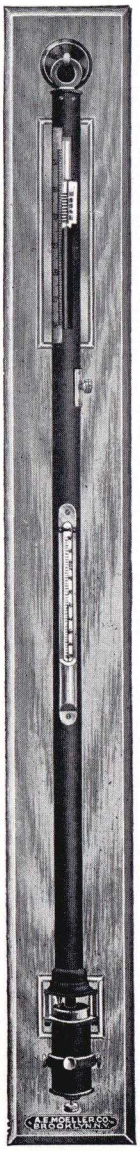
No. 1246 — Same as 1248 with catchall but no panel.

No. 1245 — Gauge only — no panel or catchall.

Gauge is filled with proper amount of pure distilled mercury when shipped.



No. 1248 Absolute Pressure Gauge



No. 510 Mercury Barometer

MERCURIAL BAROMETERS

No. 510. "FOR ALTITUDES UP TO 4000 FEET." Barometer is mounted on a mahogany panel complete with mounting bracket, suspension hook, steadying screws, and Fahrenheit thermometer. Tube has 0.25" bore. Scale runs 26 to 31 inches with a glass reflector and a Vernier reading to one hundredth of an inch.

No. 511 — As above but without panel.

No. 512 — Barometer only, without panel, brackets or reflector.

OPTIONS: Metric scale in place of inch scale, and Centigrade scale thermometer instead of Fahrenheit.

MOELLER MERCURY COLUMN VACUUM GAUGE

The gauge comes in a V-shaped steel case finished in black with a heavy glass front, set in polished bronze frame. Scale is silvered with black figures and graduations. Tube is of first quality glass with uniform bore 1/8" inside diameter, insuring a wide easily seen mercury column. 1/8" N. P. Thread connection is standard.

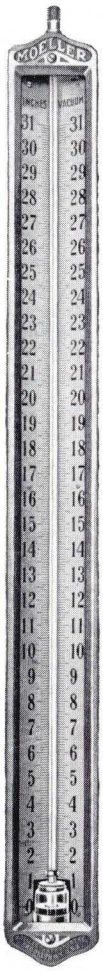
No. 1225 — Mercury vacuum gauge scale 0 to 31" in 1/10 degree divisions, as illustrated.

No. 1225A — Same as 1225 but including also a catchall (Moisture trap) oak panel and fittings.

No. 1225B — Same as 1225A except without panel.

EXTRA PARTS: For glass tube, glass mercury cistern and glass front see price list. Mercury is not regularly furnished but will be supplied at current market prices if ordered.

Changes in barometric pressure must be considered in reading these vacuum gauges.



No. 1225 Vacuum Gauge

MOELLER THERMOMETERS

For Solder, Lead, Stereotyping Metal, Lead Melting, Galvanizing Pots, Etc.

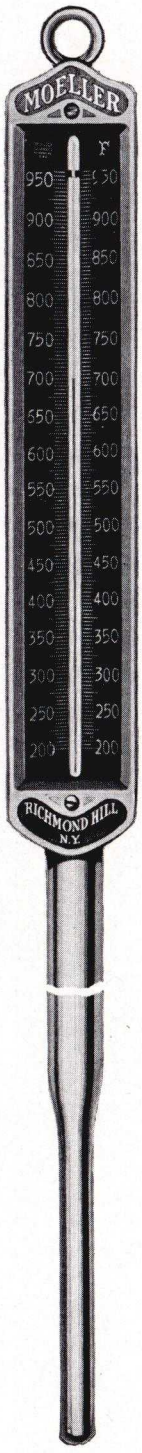
The stems only need to be inserted a short distance in bath, for accurate reading.

MERCURY FILLED WITH RED READING COLUMN

No.	*V-Shape Case	Size Scale	Range	Stem Length	Stem Material
803	handled top	7"	200 to 750° F.	14"	Steel
804		7"	450 to 950° F.	14"	Steel
805		7"	200 to 750° F.	8¾"	Steel
806		7"	450 to 950° F.	8¾"	Steel
0816	ring top	9"	200 to 750° F.	18"	Cast
0817		9"	200 to 950° F.	18"	Iron

* All cases have a glass front in an easily removable frame.

No. 803

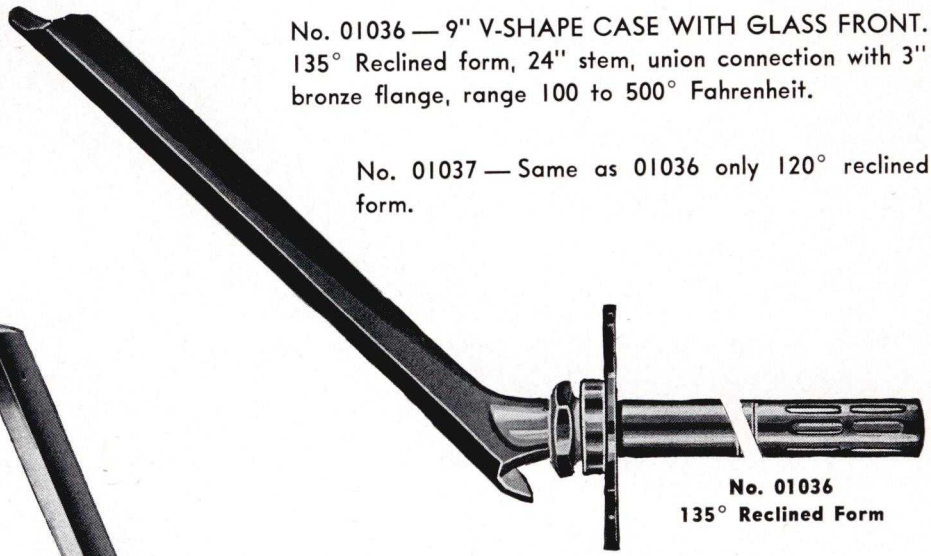


No. 817

FOR TIN PLATE ENAMELING, JAPANNING and CORE OVENS, DRY HEAT VULCANIZERS, Etc.

No. 01036 — 9" V-SHAPE CASE WITH GLASS FRONT. 135° Reclined form, 24" stem, union connection with 3" bronze flange, range 100 to 500° Fahrenheit.

No. 01037 — Same as 01036 only 120° reclined form.

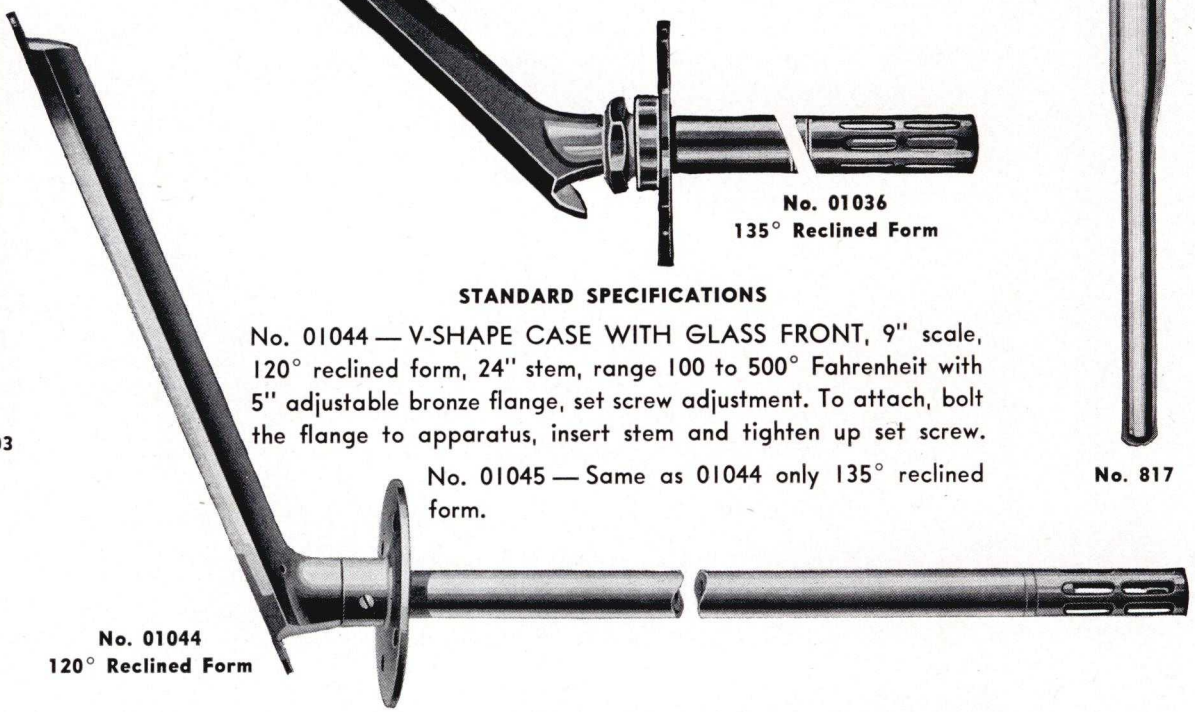


No. 01036
135° Reclined Form

STANDARD SPECIFICATIONS

No. 01044 — V-SHAPE CASE WITH GLASS FRONT, 9" scale, 120° reclined form, 24" stem, range 100 to 500° Fahrenheit with 5" adjustable bronze flange, set screw adjustment. To attach, bolt the flange to apparatus, insert stem and tighten up set screw.

No. 01045 — Same as 01044 only 135° reclined form.



No. 01044
120° Reclined Form

Mercury-Filled With Moeller Glass Red Reading Column in V-Shape Case With Glass Front

No. 946

FOR RUBBER VULCANIZERS

Standard Range 200 to 350° Fahrenheit and 0 to 100 lbs. pressure. 3½" stem length "B".

No.	Size Scale	Form	Connection ¾" N. P. Thread
946	9"	Straight	Fixed Thread
915	9"	Straight	Separable Socket
1017	9"	Regular Angle	Separable Socket
967	9"	Left Side Angle	Separable Socket
977	9"	Right Side Angle	Separable Socket

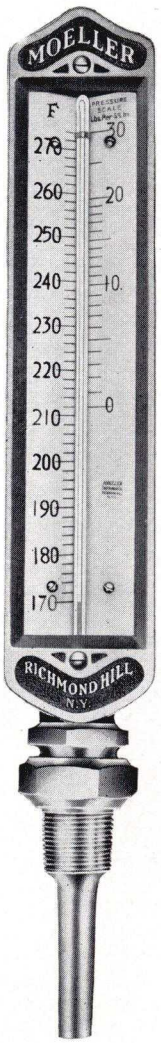
Steel sockets are standard. Brass sockets are optional. 1" N.P. thread optional. For circulation fittings see price list.

FOR CANNERS RETORTS, PEA BLANCHERS, CORN AND CONTINUOUS COOKERS, ETC.

Standard Stem Length 3½" including thread. ¾" N.P.T. is standard.

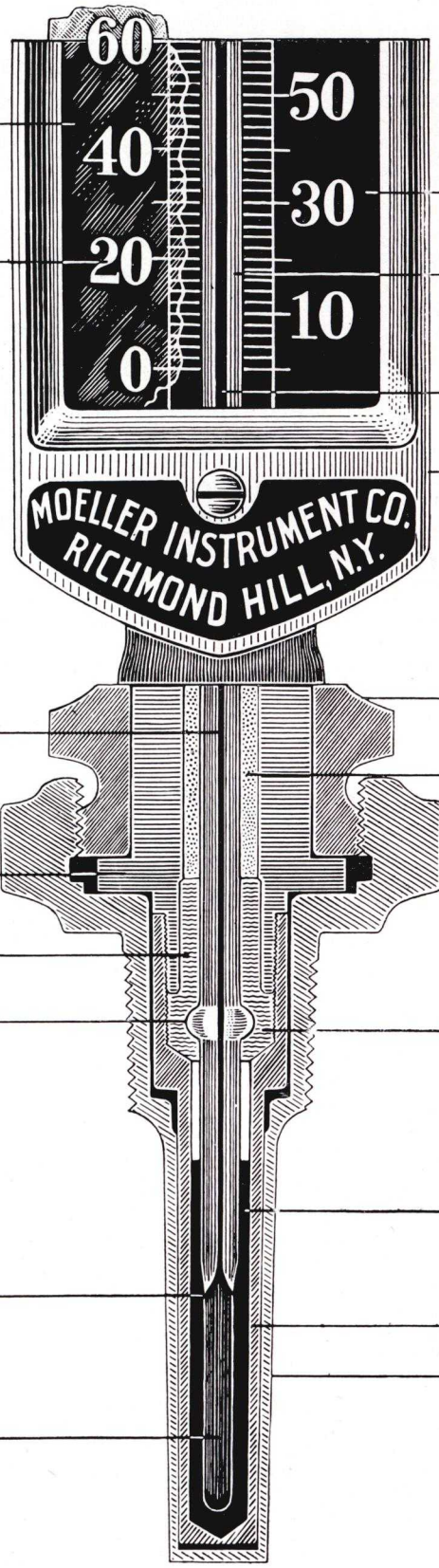
No.	Size Scale	Form	Connection	Range
899	9"	Straight	Separable Socket	170 to 270° F. and 0 to 30 lbs. Pressure
939	9"	Straight	Fixed Thread	
938	7"	Straight	Fixed Thread	
*57103	9"	Case reclined 45° from Vertical	Separable Socket	
*57003	7"			
*37103	9"	Left Side Angle		
*47103	9"	Right Side Angle		
965	9"	Left Side Angle	Flange Union	
952	9"	Right Side Angle	Flange Union	
*27103	9"	Regular Angle	Separable Socket	120-220° F.
*27003	7"	Regular Angle	Separable Socket	30-240° F.

*** Scale range must be stated in ordering.**



No 899 Separable Socket

STRUCTURAL FEATURES of MOELLER INDUSTRIAL THERMOMETERS



Extra heavy clear glass front

Large distinctive numbers and graduations. Permanent finish.

NOTE

Space above mercury column is filled with pure nitrogen under pressure preventing separation and oxidization of mercury.

Small marine bore, necessary for accuracy and sensitiveness.

Connecting piece of steel which securely attaches stem and socket to case.

Stuffing box scentifically proportioned.

NOTE RING on Glass Tube, thus effectively anchoring the tube in its proper position and preventing it from slipping down, which would cause the thermometer to read low or break the mercury bulb.

Bulb joined to tube so as to give free movement of mercury.

Bulb made of thin extra hard glass thus resisting cracking from temperature changes. Shaped for maximum sensitiveness.

Heavy metal scale, individually calibrated for each tube.

Selected magnifying lens front tube, aged and annealed, with uniform bore.

Wide column of pure double distilled mercury.

V-Shape case with removable frame, facilitating cleaning of glass. Made in two sizes. Full 7 and 9" scales.

Union coupling (swivel) nut.

Asbestos packing around glass tube acts as shock cushion.

Heavy hexagon wrench head of bronze or steel, etc., as specified.

Formed asbestos packing holds glass tube securely and also seals mercury bath in chamber.

Bath serves as quick conducting medium between stem and glass bulb. Up to 500°F. mercury is used as bath. Over 500°F. graphite or copper dust.

Metal stem tapered to exactly fit inside of socket.

Separable socket of bronze or steel, etc., as required. Accurately machined to fit stem.

MOELLER DIAL INDICATING THERMOMETERS

MERCURY ACTUATED — STANDARD GRADE

CASE — is Black Phenol Plastic with heavy glass front, assuring protection of the mechanism and scale against moisture, fumes and dust. The frame (bezel) is screwed to the case.

HOOK-UP — is designed to eliminate friction to the minimum and insure a long accuracy life. Stops are provided so that the segment will not disengage.

The Segments and all bushings are made of hard bronze while the pinion and arbor are of nickel silver.

SPRING — The heavy spiral spring shown at top of case, is made of a special high grade steel, heat treated to insure long life and close accuracy.

MERCURY FILLED SYSTEM — The bulb, stem tubing and spring are all filled with mercury under high pressure. The flexible tubing which enters from the bottom or back of the case connects at the upper end to the spiral spring, and at the other end to the bulb stem.

DIAL — is regularly silvered finish with black figures and graduations.

CAPILLARY — is of stainless steel, protected by a flexible outside metal tubing.

UNIFORM SCALE DIVISIONS AND ACCURACY — Moeller Dial Thermometers, being mercury actuated, have the advantage of uniform scale divisions. They can also be depended upon for close accuracy and sensitiveness.

MAXIMUM LENGTH OF CAPILLARY TUBING with standard construction is fifty feet.

IN ORDERING TUBING, STATE FIGURE NUMBER, SCALE RANGE AND BULB NUMBER WANTED — On long distance type with flexible tubing state also length of capillary wanted and distance the bulb will be placed above or below the case. Also prevailing temperatures to which tubing and case will be subjected.

MOELLER DIAL TYPE INDICATING THERMOMETERS

Remote Reading Type • ***Uniform Divisions*** ***Mercury Actuated***

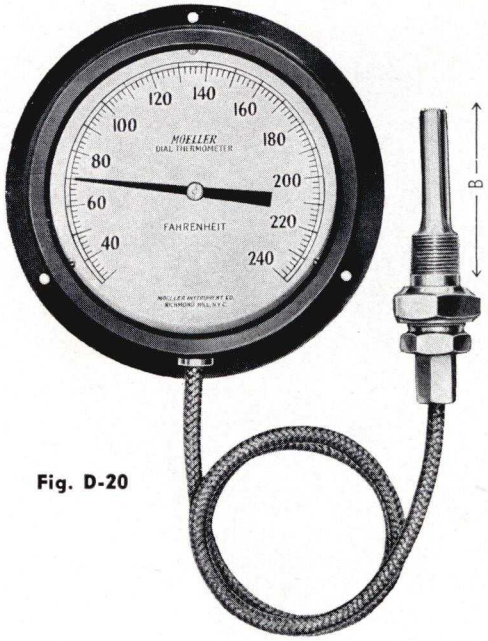


Fig. D-20

STANDARD SPECIFICATIONS

Black Phenol Plastic case with glass front. Bottom connection. Panel mounting. Brass socket. ¾" N.P. Thread.

CAPILLARY TUBING—Maximum length of flexibility with standard construction is 50 feet.

FULLY COMPENSATED CONSTRUCTION can be furnished where longer lengths of capillary is required. See price list.

OPTIONS

Back Connection	Steel Sockets
Flush Mounting	1" N.P. Thread

DIAL THERMOMETER

with Separable Socket Connection

(No extension neck)

Stem "B" Length Including Thread	4½" Dial No.	6" Dial No.	8" Dial No.
3½"	100003	100103	100203
5¼"	100005	100105	100205
6"	100006	100106	100206
7"	100007	100107	100207
8"	100008	100108	100208
*12"	100012	100112	100212

*Sockets longer than 12" also furnished. See price list.

Fig. R-10

CAPILLARY REINFORCEMENT

For unusually severe conditions where the bulb must be removed from the apparatus, frequently, the flexible, armored capillary protective tubing should be reinforced both at the case and at the bulb. Illustration shows reinforcement at bulb end.

In ordering specify capillary Reinforcement No. R-10.

EXTENSION NECK SOCKETS

Sockets can have an extension neck as shown in Fig. A-25 for passing through insulation on pipe or apparatus.

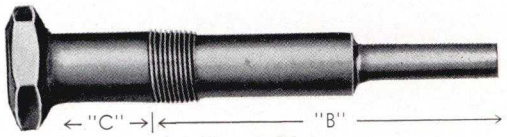


Fig. A-25

EXTENSION NECK SOCKETS

Socket No.	"C" Ext. Neck	"B" Stem Length Including Thread
5¼x1¾	1¾"	3½"
6 x2½	2½"	3½"
7 x3½	3½"	3½"
8 x4½	4½"	3½"
7 x2½	2½"	5"
8 x2	2"	6"
8 x2½	2½"	5½"
10 x2½	2½"	7½"
12 x2½	2½"	10"
12 x4¼	4½"	8"

PRICING—The combined "C" and "B" length determines the price. For example, dial thermometer with socket No. 6" x 2½" costs the same as if furnished with a standard form 6" socket.

MOELLER DIAL INDICATING THERMOMETERS

Plain Bulbs (No Threaded Connection)
For Liquids and Air Temperatures

FIG. D-15

With 10" Sensitive Bulb No. M-530

Dial thermometers with a long sensitive bulb as shown above, are used mainly for air temperatures in refrigerating and drying rooms, ovens, air ducts, shipholds, etc.

A 2" split flange can be furnished to cover opening made to admit bulb, if so ordered.

WITH EXTRA SENSITIVE BULB
"For Air Temperatures"

Standard bulb is 10" long by 3/8" diameter and made of stainless steel.

NOTE: Entire 10" length of bulb must come in contact with the air or other medium for accurate reading.

Bulb Length	4½" Dial No.	6" Dial No.	8" Dial No.
10"	106000	106100	106200

For other bulbs, see page 24.

STANDARD RANGES FOR DIAL THERMOMETERS

Minus	40 to 110° F.	Plus	30 to 300° F.
Minus	20 to 110° F.		50 to 400° F.
	0 to 100° F.		100 to 500° F.
	0 to 160° F.		150 to 500° F.
Plus	30 to 180° F.		200 to 1000° F.
	30 to 240° F.		

FIG. D-18

FIG. D-18 DUPLEX TYPE

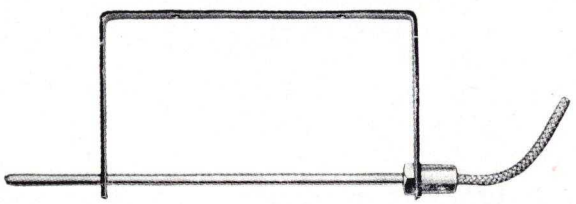
These dial thermometers have two separate systems, including two lengths of capillary tubing, two bulbs and two dial indicators, for taking temperatures at two separate points. Actually two instruments in one case.

DUPLEX TYPE DIALS

can be made with plain bulbs for air and liquid temperatures as illustrated above, or the bulbs can have a separable socket or a union connection hub or flange can be furnished. Length of capillary tubing may vary for each bulb to suit requirements.

Made in all standard dial ranges.

BULB SUPPORTING BRACKET A-37



To assure proper circulation the bulb should be mounted 5" or more away from the wall or ceiling and particularly away from hot or cold pipe lines, etc.

Bulb Bracket No. A-37 illustrated offers the practical method of supporting the bulb in a refrigerating room, etc. Easily attached with two screws.

STANDARD BULBS FOR MOELLER DIAL AND RECORDING THERMOMETERS

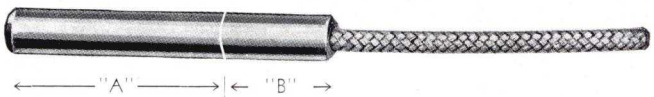
LONG DISTANCE TYPE

Listed on Pages 21 to 30

NOTE: "A" is the sensitive portion of the bulb and regularly 2½" long. However, the sensitive "A" portion can be either 5" or 10" long.

"B" portion is regularly 2½" but can be made longer to suit.

PLAIN BULB FOR LIQUIDS No. M-525



Plain bulb M-525 is only to be used for liquid temperatures in apparatus not under pressure.

UNION CONNECTION BULB M-545

The bulb can be furnished with a Union Threaded Hub Fig. A-2 or a Union Threaded Flange Fig. A-3.

The sensitive "A" length of bulb can be made up to 10" with "B" length to suit.

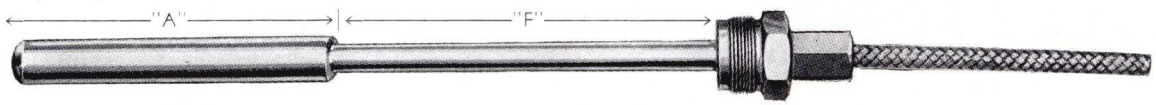
Fig. A-2

Union Hub

Fig. A-3

Union Connection Flange

BENDABLE EXTENSION UNION CONECTION BULB No. M-550



For use where space for bulb is restricted.

BENDABLE LENGTH F is regularly 6" long, but can be of longer length at extra cost. "A" length can be increased to either 5" or 10".

¾" N.P. Thread Brass Hub is Standard. Steel Hub Optional.

FOR MOLTEN METAL

Bulb No. M-540 is specially designed for use in solder and lead melting pots, etc.

Standard length is 12" and diameter of bulb at the end approximately ¾". Bulb only needs to be immersed 1¼" for accurate reading. Standard range is 200 to 800° F.

MOELLER DIAL INDICATING THERMOMETERS

Adjustable Form — No Capillary

Case is black phenol plastic with glass front set in screwed on phenol frame. Dials are silvered finish. Brass Sockets are standard with ¾" N.P. Thread. Steel sockets are optional. 1" N.P. Thread also optional.

Stem Length "B" including Thread	Separable Socket Connection		
	4½" Dial No.	6" Dial No.	8" Dial No.
3½"	102003	102103	102203
5¼"	102005	102105	102205
6"	102006	102106	102206
8"	102008	102108	102208
12"	102012	102112	102212
18"	102018	102118	102218
24"	102024	102124	102224
30"	102030	102130	102230
36"	102036	102136	102236

EXTENSION NECK SOCKETS can also be furnished.

See page 22 for standard lengths.

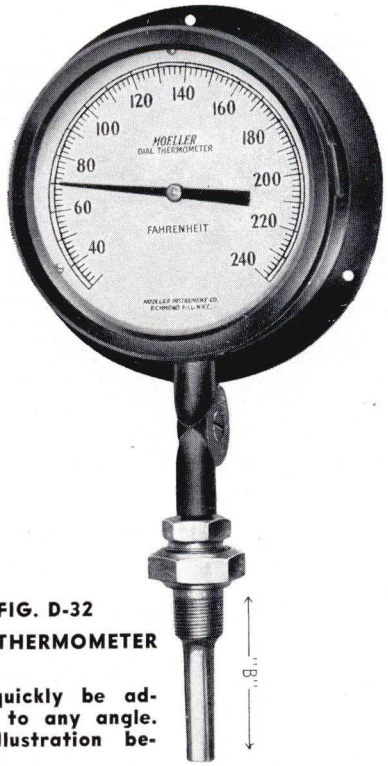


FIG. D-32
DIAL THERMOMETER

Can quickly be adjusted to any angle. See illustration below.

STANDARD RANGES FOR DIAL THERMOMETERS

Minus	40 to 110° F.	Plus	30 to 240° F.
Minus	20 to 110° F.		30 to 300° F.
	0 to 100° F.		50 to 400° F.
	0 to 160° F.		100 to 500° F.
Plus	30 to 180° F.		200 to 1000° F.

MOELLER EXCLUSIVE ADJUSTABLE FORM FEATURE

By simply loosening the universal joint in the bottom of the case as illustrated in Fig. 2 below, the form can be easily changed so that the case reclines backward or forward at any angle required.

Stem can also project at angle of 90° to left or right side of case or in an oblique side form.

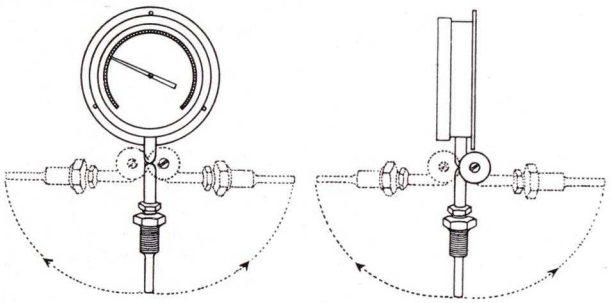


FIG. 2

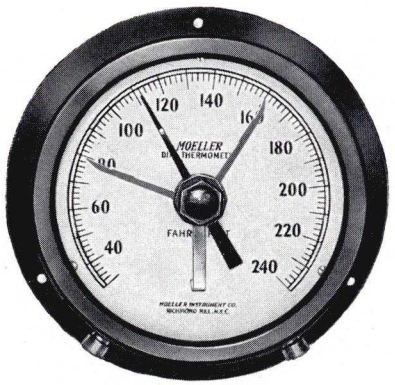
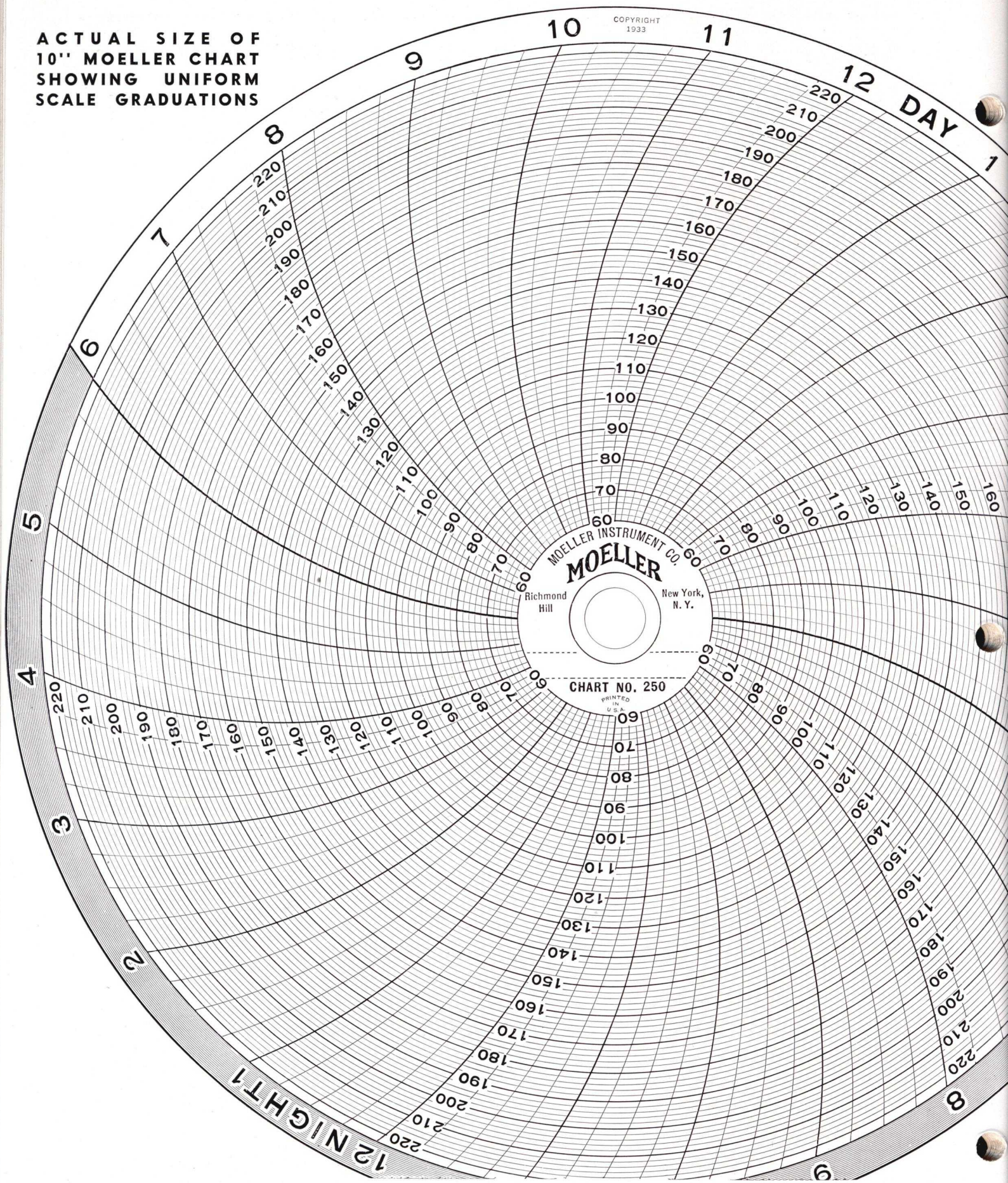


FIG. D-34

DIAL THERMOMETER WITH TWO ADJUSTABLE ELECTRIC CONTACTS

All Moeller Dial Thermometers can be furnished with adjustable electric contacts to give an alarm at a low or a high temperature point, or at both. Suitable for use with 110 volts 25 watts or 220 volts 50 watts non-inductive load.

ACTUAL SIZE OF 10" MOELLER CHART SHOWING UNIFORM SCALE GRADUATIONS



MOELLER INSTRUMENT COMPANY, RICHMOND HILL, NEW YORK CITY, N. Y.

CHARTS FOR MOELLER RECORDING INSTRUMENTS

Moeller Recording Thermometers and Psychrometers are to be used only with charts made by us, which bear our firm name, the word "MOELLER" and chart number. If used with any other chart, the instrument will not record accurately and all guarantees are void.

FAHRENHEIT CHARTS

Chart No.	Range	Division	One Chart Revolution
50F	10 to 50	1°	24 hour
51F	—10 to 50	1°	24 hour
90F	20 to 90	1°	24 hour
200F	0 to 100	2°	24 hour
7— 200F	0 to 100	2°	7 day
180F	—40 to 110	2°	24 hour
7— 180F	—40 to 110	2°	7 day
120F	30 to 120	1°	24 hour
7— 120F	30 to 120	1°	7 day
7— 150F	40 to 150	2°	7 day
160F	0 to 160	2°	24 hour
250F	60 to 220	2°	24 hour
7— 220F	60 to 220	2°	7 day
12— 220F	60 to 220	2°	12 hour
255F	30 to 230	2°	24 hour
M—220F	30 to 220	1°	12 hour
270F	80 to 270	2°	24 hour
7— 270F	80 to 270	2°	7 day
300F	30 to 300	2°	24 hour
400F	50 to 400	2°	24 hour
500F	50 to 500	5°	24 hour
7— 550F	50 to 500	5°	7 day
600F	50 to 600	5°	24 hour
750F	200 to 750	10°	24 hour
800F	0 to 800	10°	24 hour
1000F	200 to 1000	10°	24 hour
7—1000F	200 to 1000	10°	7 day

REVERSE READING CHARTS

REV- 30	—10 to 30	1°	24 hour
REV-110	—40 to 110	2°	24 hour

As mercury has a uniform co-efficient of expansion, the above charts are also suitable for use in recording temperatures in Centigrade or Reaumur.

For Centigrade temperatures any of the above charts can be used up to 500 degrees. For Reaumur temperatures any of the above charts can be used up to 400 degrees.

For example, chart No. 250, range 60 to 220°, can be used for recording temperatures in degrees Fahrenheit, Centigrade or Reaumur, but the instruments of course, have to be ordered and calibrated according to the scale to be used.

RECORDER CLOCKS and ACCESSORIES CLOCKS

	Furnished with Recorder
*Twenty-four hour, hand wound or electric	No Extra Cost
Seven Day Clock, hand wound	At Extra Cost
Seven Day Clock, electric operated	No Extra Cost
Twelve Hour, hand wound or electric	No Extra Cost

*Note: Hand wound clocks are furnished unless electric are specified.

WARREN TELECHRON A.C. ELECTRIC CLOCKS

110 volts, 60 cycle are standard without extra charge.

Optional, 110 or 120 volts; 60 or 25 cycle electric clocks can be furnished without extra charge.

FOR EXTRA CLOCKS, pens, pen arms, charts, ink, chart holders, lock and key, see price list.

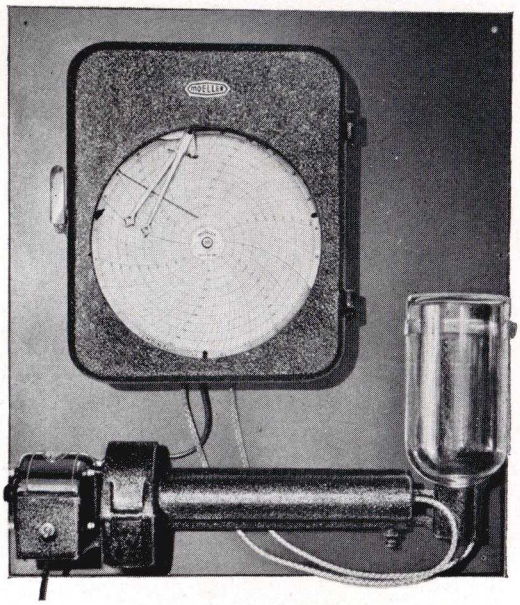
MOELLER RECORDING PSYCHROMETERS

The Moeller Recording Psychrometer is in effect a 2 pen recording thermometer except that it has one wet and one dry bulb. One bulb (see illustration) is covered by wicking, which is kept constantly wet from the water reservoir.

The instrument functions on the principle that evaporation of water from the wet bulb causes a loss of heat and the wet bulb will read lower than the dry bulb, unless the air is 100% saturated.

HOW TO READ. Note first the dry bulb temperature and then see how many degrees lower the wet bulb indicates. From the humidity chart furnished the relative humidity can then be quickly noted.

CIRCULATION OF AIR NECESSARY. The instrument to properly function must have a good circulation of air around the wet and dry bulbs. Where such circulation does not prevail, Types 6650 or 6660 should be purchased.



RECORDING PSYCHROMETER TYPE No. 6650

STANDARD SPECIFICATIONS

The Psychrometers are furnished in black finish rectangular shape cases. A two quart water reservoir, two extra wicks, 100 charts, one bottle each of green and red ink, and a Moeller easy reading humidity chart in hardwood frame are all furnished. For standard charts see page 29.

Type No. 6600 MOELLER RECORDING PSYCHROMETER for use with natural air circulation. The instrument must be mounted inside the room or apparatus where the relative humidity is to be measured.

LONG DISTANCE TYPE No. 6620. Same as No. 6600 except furnished with flexible capillary tubing and a bracket which allows the bulbs to be inserted inside of apparatus, with the water reservoir outside. List with 5 ft. capillary tubing.

TYPE No. 6650. See illustration. Same as Type No. 6600 except instrument is mounted on a hardwood panel and provided with a motor driven fan so that the air is continually circulated across the wet and dry bulbs. The bulbs are enclosed so the air from the wet bulb cannot affect the dry bulb. (In ordering specify whether A.C. or D.C. current. If A.C., state phase and cycles.)

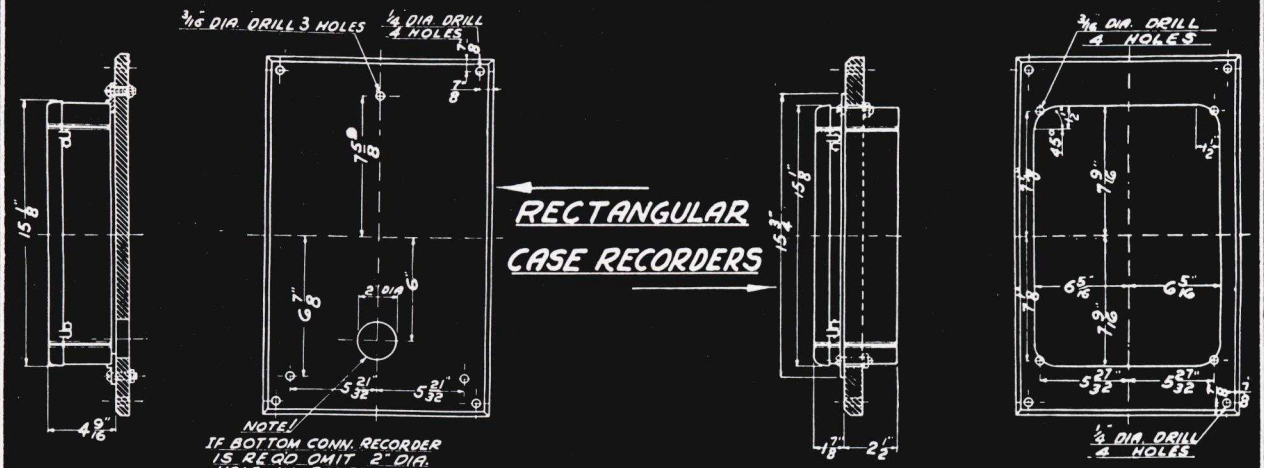
LONG DISTANCE TYPE No. 6660 is provided with a motor driven fan and also capillary tubing of required length so that the recorder case can be mounted away from the bulbs and outside of apparatus if desired. Price includes 5 feet of tubing to each bulb.

NOTE. Both the wet and the dry bulb must have the same length of capillary tubing.

AUTOMATIC FLOAT WATER BOX. In place of the water reservoir illustrated, the instrument can be furnished with a water box having an automatic float control, assuring proper water supply to the wet bulb at all times. NOTE: Water supply requires $1/8$" pipe connection. Price includes union connection at box, but not the piping.

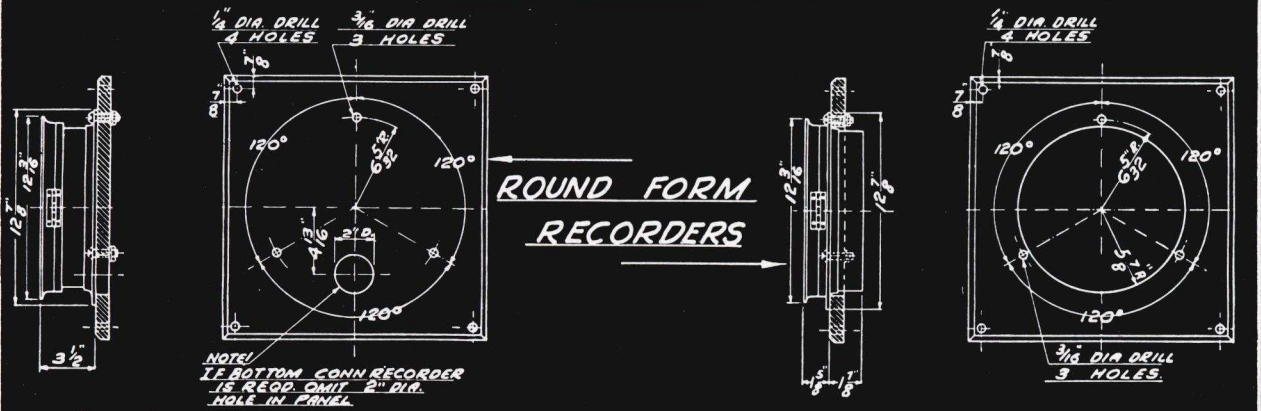
BACK CONNECTION instruments are optional on all types.

CASE AND DRILLING DIMENSIONS FOR MOELLER ROUND FORM RECORDERS RECTANGULAR FORM RECORDERS — DIAL THERMOMETERS


3/16" DIA. DRILL 3 HOLES
1/4 DIA. DRILL 4 HOLES
RECTANGULAR CASE RECORDERS
3/16 DIA. DRILL 4 HOLES
1/4 DIA. DRILL 4 HOLES
NOTE! IF BOTTOM CONN. RECORDER IS REQD. OMIT 2" DIA. HOLE IN PANEL.

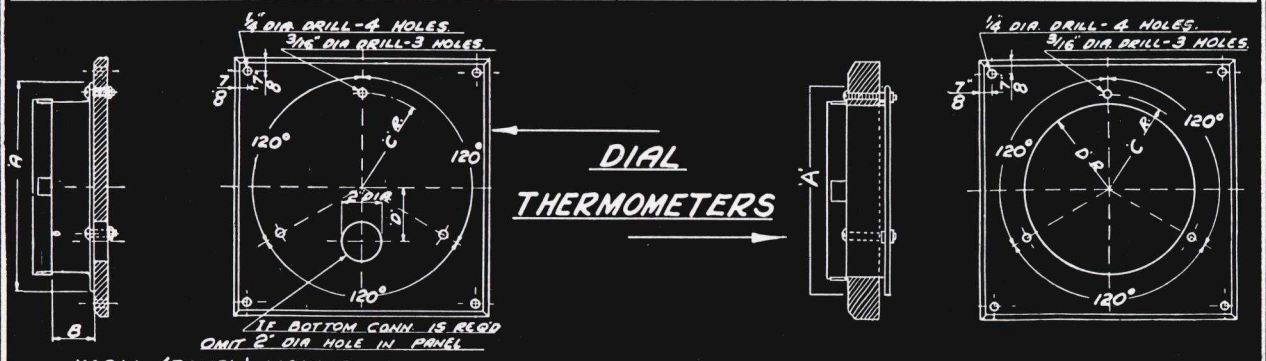
RECTANGULAR CASE WALL (PANEL) MOUNTING

RECTANGULAR CASE FLUSH MOUNTING


1/4 DIA. DRILL 4 HOLES
3/16 DIA. DRILL 3 HOLES
ROUND FORM RECORDERS
1/4 DIA. DRILL 4 HOLES
3/16 DIA. DRILL 3 HOLES.
NOTE! IF BOTTOM CONN. RECORDER IS REQD. OMIT 2" DIA. HOLE IN PANEL.

ROUND FORM CASE WALL (PANEL) MOUNTING

ROUND FORM CASE FLUSH MOUNTING


1/4 DIA. DRILL - 4 HOLES.
3/16" DIA. DRILL - 3 HOLES.
DIAL THERMOMETERS
1/4 DIA. DRILL - 4 HOLES.
3/16" DIA. DRILL - 3 HOLES.
IF BOTTOM CONN. IS REQD OMIT 2" DIA HOLE IN PANEL

WALL (PANEL) MOUNTING

THERMOM. SIZE	A	B	C	D
4½"	5⅞" DIA	2⅛"	2 11/16" R	1 5/8"
6"	7 9/16" DIA	2⅛"	3½" R	2 3/32"
8½"	10 3/16" DIA	2¼"	4 3/4" R	2 3/32"
10"	11¾" DIA	2⅛"	5 15/32" R	4 5/8"
12"	13¾" DIA	2⅛"	6 15/32" R	5 5/8"

FLUSH MOUNTING

THERMOM SIZE	A	B	C	D
4½"	5⅞" DIA	1¼"	2 1/16" R	2 7/16" R
6"	7 9/16" DIA	1¼"	3½" R	3 3/32" R
8½"	10 3/16" DIA	1⅜"	4 3/4" R	4 7/16" R

MOELLER INSTRUMENT CO.
RICHMOND HILL, NEW YORK CITY, N. Y.

MOELLER SALINOMETER SETS

FOR MARINE USE

METAL SALINOMETER SETS, U. S. NAVY TYPE

No. 1691 — Set consists of three metal Salinometer Hydrometers, individually graduated from 0 to 1½/32nds, each calibrated with four different temperature scales as follows:

110, 115, 120, 125° F.
125, 130, 135, 140° F.
140, 145, 150, 155° F.

Set includes a No. 390 Salinometer Thermometer as illustrated on Page 33. Packed complete in a fitted, black leatherette case.

No. 1692 — Set consists of 3 Metal Salinometer Hydrometers, individually graduated from 0 to 5/32nds, each calibrated with four different temperature scales, as follows:

110, 115, 120, 125° F.
125, 130, 135, 140° F.
140, 145, 150, 155° F.

Set includes a No. 390 Salinometer Thermometer, as illustrated on Page 33. Packed complete in a fitted, black leatherette case.

No. 1691

No. 1693

No. 1693 — Set consists of three metal Salinometer Hydrometers, individually graduated from 0 to 1½/32nds, each calibrated with four different temperature scales as follows:

110, 115, 120, 125° F.
125, 130, 135, 140° F.
140, 145, 150, 155° F.

Set includes a Brass Salinometer Pot No. 400-N and Salinometer Thermometer No. 390 illustrated on Page 33. Packed complete in a fitted black leatherette carrying case.

No. 1694 — Set consists of three metal Salinometer Hydrometers, individually graduated from 0 to 5/32nds, each calibrated with four different temperature scales as follows:

110, 115, 120, 125° F.
125, 130, 135, 140° F.
140, 145, 150, 155° F.

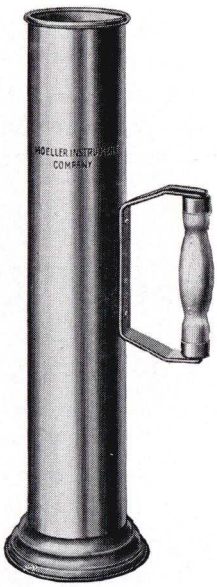
Set includes a Brass Salinometer Pot No. 400-N and Salinometer Thermometer No. 390 illustrated on Page 33. Packed complete in a fitted black leatherette carrying case.

Each item listed on this page may be individually purchased. See price list.

MOELLER SALINOMETER POTS, THERMOMETERS AND HYDROMETERS

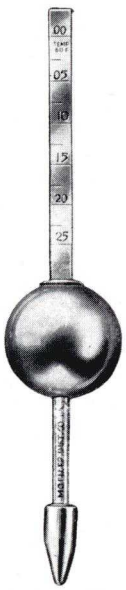
FOR MARINE USE

No. 390



Job No. 400-N

No. 1690



No. 1695

No. 2025

No. 2026

No. 390 — 8½" SALINOMETER THERMOMETER silvered brass scale, mercury filled tube, with guard and spring on back to prevent sliding in pot.
Range of scale, 100 to 220° F.

No. 400-N — 12" HEAVY BRASS SALINOMETER POT. Provided with slide to hold the thermometer.

No. 1690 — METAL SALINOMETER HYDROMETER graduated from 0 to 5/32° in three temperatures, namely 100°, 150°, and 200° F. Length 11¼".

No. 1695 — MOELLER METAL LOAD LINE HYDROMETER — 8½" length.

NOTE: Used in determining the density of water. The hydrometer reading obtained is compared with a government Load Line Certificate. From this comparison, the allowable draft to which the ship may be loaded in water of different densities is readily determined.

No. 2025 — GLASS SALINOMETER, graduated 0 to 5/32° at three temperatures: 190°, 200°, and 210° F.

No. 2026 — SALT HYDROMETER, 0 to 100°.

GLASS HYDROMETERS

No. 2011 — FOR CALCIUM CHLORIDE scaled 0 to 120° 11½" long. Each degree represents ¼° Baume.

No. 2012S — CALCIUM CHLORIDE HYDROMETER shows specific gravity plus equivalent freezing points of salt and calcium chloride.

Moeller Marine Instruments have been recognized as Standard for over 40 years. They are instruments of high precision and so guaranteed. Our name appears on every one.

SOUNDING TUBES

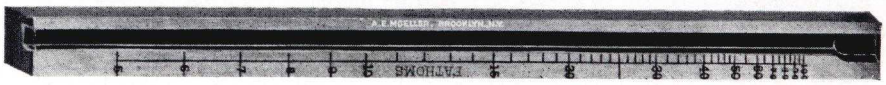
No. 410

No. 410 — MOELLER IMPROVED CHEMICAL SOUNDING TUBE, calibrated, hermetically sealed at both ends to protect the chemical coating inside, single coated, gives instantaneous clear marking. Packed in an air tight black japanned tin case. (10 tubes per case.)

No. 420

No. 420 — A.E.M. SPIRAL GROUND GLASS SOUNDING TUBE, clear marking, calibrated with rubber top for repeated use. Packed in a moisture proof black japanned tin case. (10 tubes per case.)

FATHOM RULES



No. 430

No. 430 — FATHOM RULE, hardwood, varnished finish, single slotted with stop, black figures, graduated from 5 to 100 fathoms.

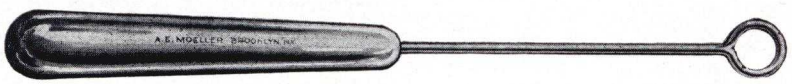
No. 431 — FATHOM RULE, hardwood, varnished finish, with stop, double slotted (white and black) for chemical and ground glass sounding tubes, with black filled figures, graduated from 5 to 100 fathoms.

SOUNDING SHEATH

No. 440

No. 440 — BRASS SOUNDING SHEATH, nickeled, with interior shock absorbing spring, projecting eyelets and hold-tight locking device.

SOUNDING LEAD RODS



No. 450

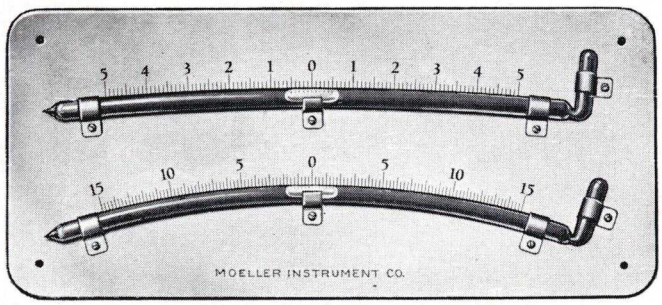
No. 450 — 34" SOUNDING LEAD ROD with 3" forged ring, cast iron base with 1⅝" tallow core; approximate weight 25 lbs.

MOELLER CLINOMETER TUBES

Trim and Heel Indicators — Spirit Type

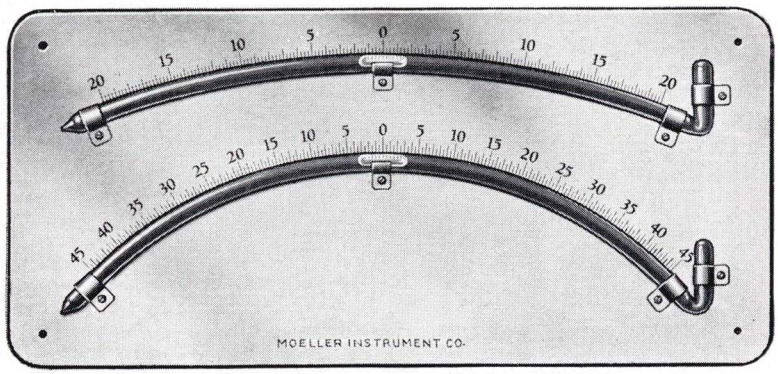
No. 455 — MOELLER TRIM INDICATOR consists of two spirit filled glass tubes mounted on a stainless steel graduated panel. The top tube is graduated from 0 to 5° of arc on each side of the vertical. The scale is subdivided in 1/10° divisions.

The lower tube is graduated 0 to 15° of arc on each side of the vertical. The scale is subdivided in 1/4° divisions.



No. 455 — TRIM INDICATOR

No. 458 — MOELLER HEEL INDICATORS are similar to the trim indicator except that the stainless steel panel measures 17 x 18". Top tube is graduated from 0 to 20° of arc on each side of the vertical. The scale is subdivided in 1/4° divisions. The lower tube is graduated from 0 to 45° of arc on each side of the vertical. Scale is subdivided in 1/2° divisions.



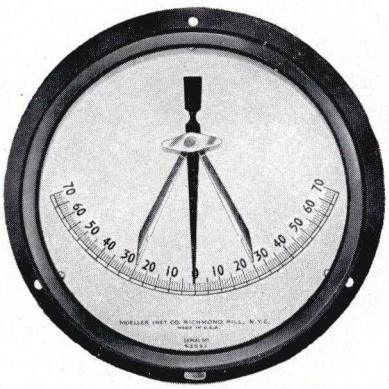
No. 458 — HEEL INDICATOR

MOELLER SHIPS CLINOMETER

MOELLER SHIPS CLINOMETER is a precise marine instrument used for determining the angle of inclination of a ship at any instant. It is indispensable in the proper loading of a ship.

SPECIFICATIONS

No. 460 — CLINOMETER. 10" black finish cast case 8" silvered dial protected with heavy glass front. Dial is graduated from 0 to 70° to show list to both port and starboard. Dial is fitted with 5" pointer and also two maximum indicators, a resetting device, test agitator and stop to hold movable pointer when not in use.

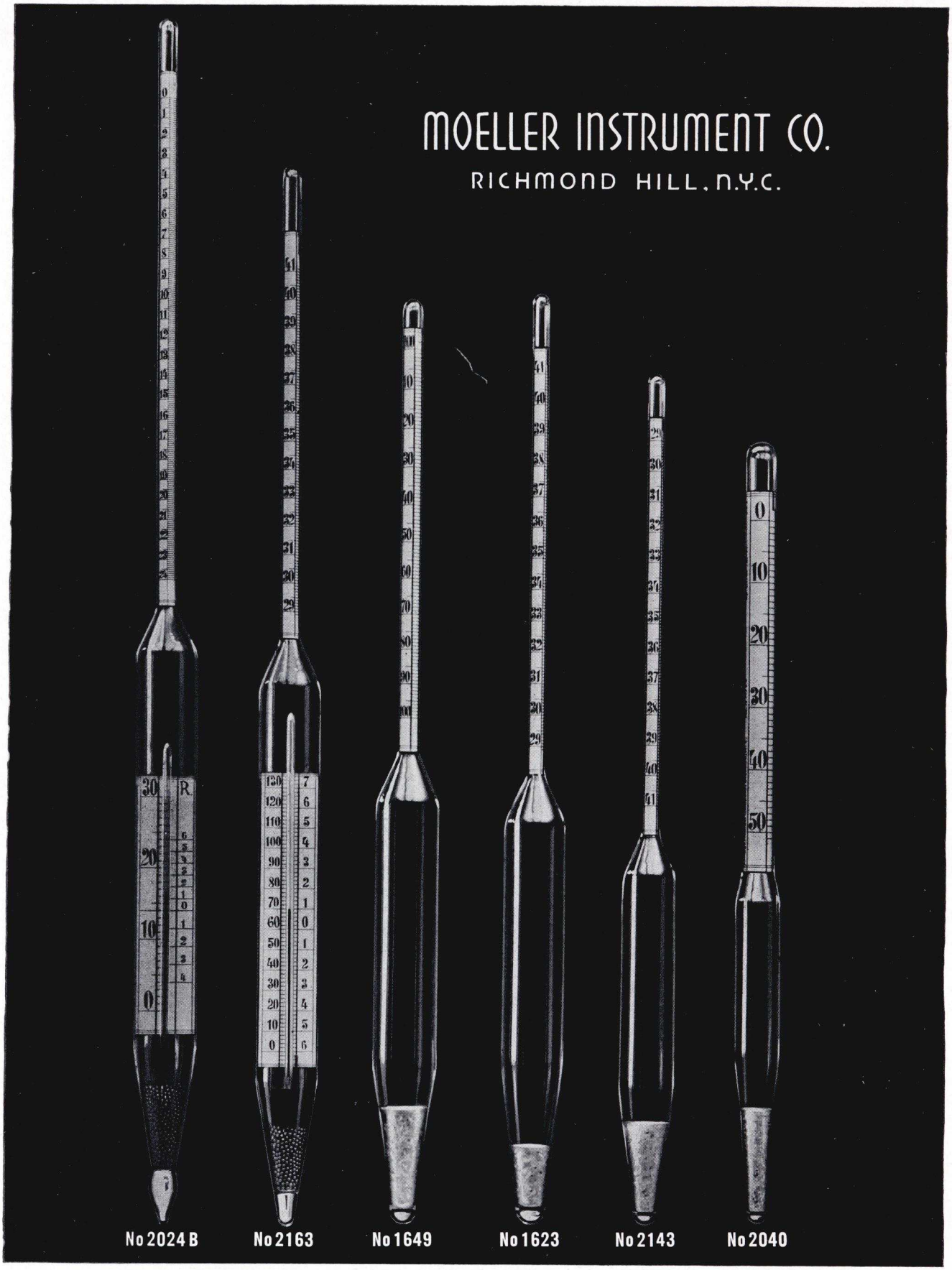


No. 460

Above are all in accordance with U. S. Navy Specifications.

MOELLER INSTRUMENT COMPANY, RICHMOND HILL, NEW YORK CITY, N. Y.

MOELLER HYDROMETERS



Catalog listing our complete line of hydrometers sent on request.

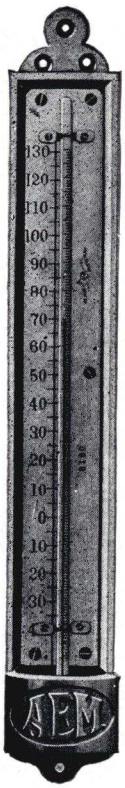
MOELLER GENERAL UTILITY THERMOMETERS

STANDARD GRADE

No. 111

No. 131

No. 360



No. 371

No. 375

No. 380

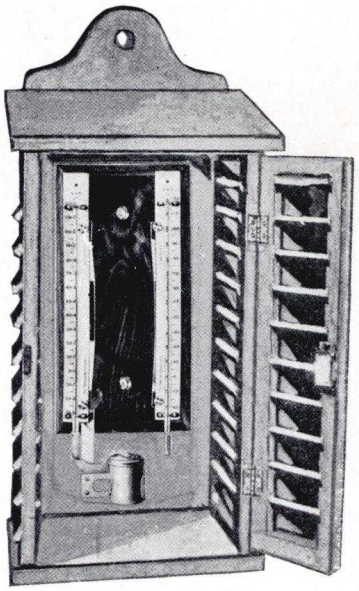
No.	Approx. Range	Divisions	Tube Filling	Case	CASE LENGTH
*111	0 to 240° F.	2°	Red Liquid	Black Japanned	10" and 12"
*131	—30 to 130° F.	2°	Red Liquid	Black Japanned	10" and 12"
360	—30 to 130° F.	2°	Red Liquid	Cylindrical brass case 1" Dia.	12"
371	—30 to 130° F.	2°	Red Liquid	Cadmium plated iron case	13"
375	—30 to 130° F.	2°	Red Liquid	Round Form Wood Case	12"
380	—30 to 130° F.	2°	Red Liquid	Galvanized iron frame with rubber rings and buffer to prevent breakage	15"

*NOTE—12" case will be supplied unless 10" is specified.

MOELLER WEATHER BUREAU PSYCHROMETERS

PRECISION GRADE

FOR RELATIVE HUMIDITY AND TEMPERATURE



No. 615

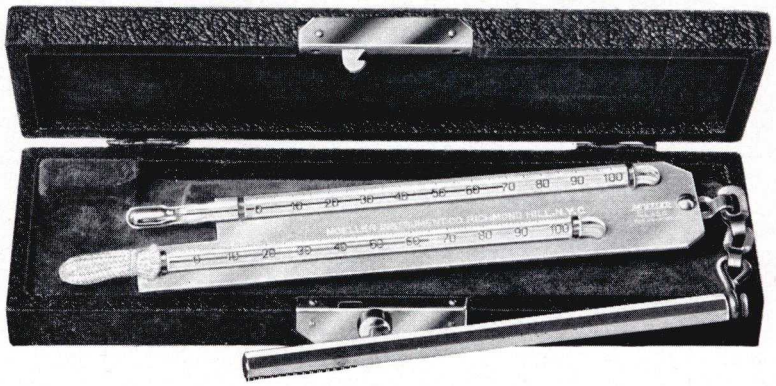
No. 600 — Psychrometer, Weather Bureau pattern. Engraved mercury tube, cylindrical bulb, mounted on metal scale marked with a line every five degrees, and figures every ten degrees. Brass insulating straps with binding thumb screws and cistern. Humidity table accompanies each instrument.

No. 615 — Psychrometer, same as No. 600 but furnished with shelter as illustrated. Shelter and psychrometer are manufactured in accordance with the U. S. Weather Bureau Specifications. The shelter is provided with sloping top louvre front and sides to shelter the psychrometer from the direct rays of the sun and inclement weather. The shelter is made of pine, painted gray and furnished with lock and key.

MOELLER SLING PSYCHROMETERS

The instrument consists of two 12" mercury filled magnifying lens front engraved stem thermometers, mounted on an aluminum back. The instrument is revolved by means of the metal handle, which is folded down against the side when not in use, as illustrated. An easy reading humidity chart is furnished with each instrument.

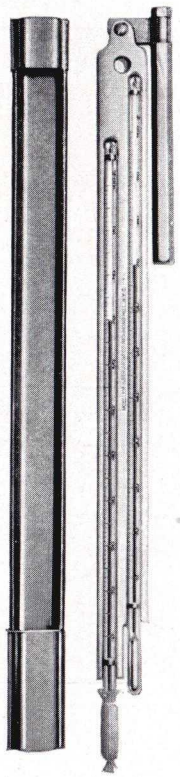
No. 700 Range—Minus 20 to 120° F. in 1° Div.
No. 701 Range— 0 to 100° F. in ½° Div.
No. 702 Range— 0 to 220° F. in 1° Div.



No. 653

POCKET TYPE SLING PSYCHROMETERS. The instrument consists of two mercury filled magnifying lens front engraved stem thermometers, mounted on an aluminum back and fitted into a plush lined pocket size leatherette carrying case.

No. 653 Range— 0 to 100° F. in 1° Div.
No. 652 Range—Minus 20 to 120° F. in 1° Div.

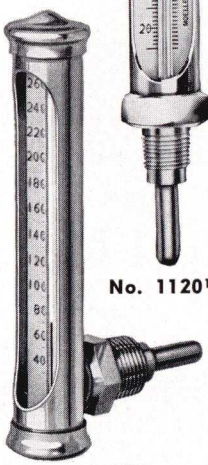


No. 700

Note: — Extra tubes, scales, and wicks can be supplied.

MOELLER CYLINDRICAL BRASS CASE THERMOMETERS

No. 1120½



No. 1138½

STANDARD SPECIFICATIONS: 5" Black Enameled Brass Case, Silvered Scales and Mercury Filled Tubes. *½" N.P. thread is standard.

No.	Stem Length "B" Including Thread	Form	Standard Ranges
1120½	2"	Straight	Minus 30 to 110° F.
1122½	2"	Straight	+ 30 to 240° F.
1130½	2"	Angle	Minus 30 to 110° F.
1138½	2"	Angle	+ 30 to 240° F.

*⅜" N.P. Thrd. is optional.

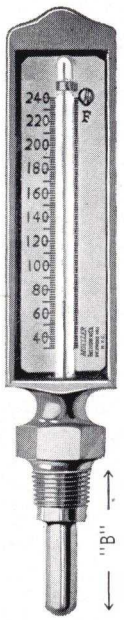
MIDGET THERMOMETERS

The case measures 4½" overall and is of iron finished in black, ⅜" S. P. T. fixed thread connection, 2" stem including thread. Sides of case are raised 7/16", offering good protection to tube.

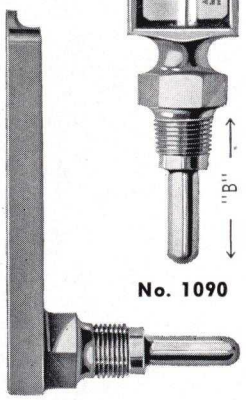
STANDARD RANGES

Minus 30 to 110° F., and plus 30 to 240° F.

No. 1090 Straight form
No. 1100 Rear angle form
No. 1110 Right side angle
No. 1115 Left side angle

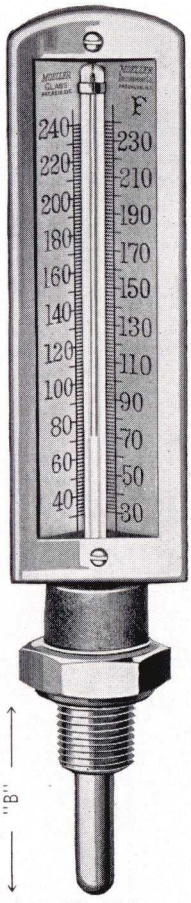


No. 1090



No. 1100

MOELLER 5" GLASS FRONT THERMOMETERS

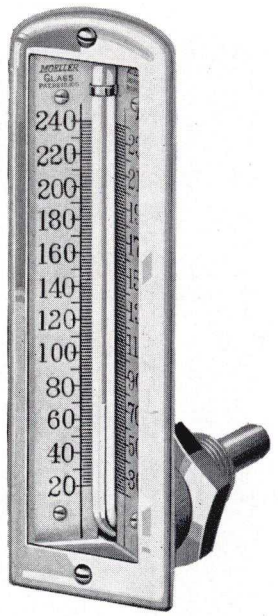


No. 1064

STANDARD SPECIFICATIONS

5" V-Shaped Iron Case with Glass Front set in frame, ½" N.P.T. fixed connection, 2" stem, mercury filled tube and Moeller Glass Red Reading Column.

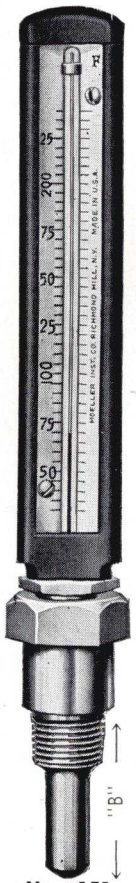
Number	Form	Standard Scale Ranges Approx.
1063	Straight	Minus 30 to 110° F.
1064	Straight	+ 30 to 240° F.
1053	Angle	Minus 30 to 110° F.
1054	Angle	+ 30 to 240° F.



No. 1054

MOELLER "STREAMLINED" (SUBMARINE) GLASS FRONT THERMOMETERS

Mercury Filled



No. 1151
Illustrating straight form thermometer
With 1/2" N. P. Thread
Stem length "B" including thread is 2"

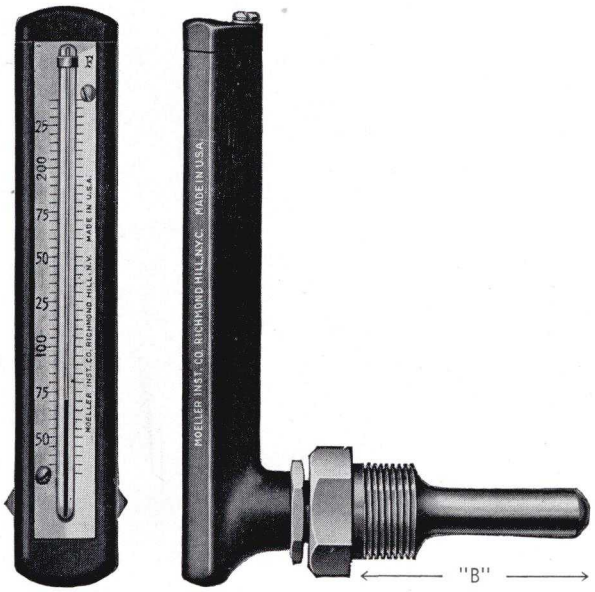
STANDARD SPECIFICATIONS

A V-shape black enamel cast brass case, 6¾" overall length by 1⅛" width. The silvered scale measures 5¾".

Sockets are regularly furnished of Naval brass with either ¾ or ½" N. P. Thread.

With ¾" N. P. Thread, the stem length "B" measures 2¾" including thread.

With ½" N. P. Thread, the "B" stem length measures 2" including thread.



No. 1152
Illustrating angle form thermometer
With ¾" N. P. Thread
Stem length "B" including thread is 2¾"

STANDARD SCALE RANGES

+30 to 240° F. in 2° div.
200 to 500° F. in 5° div.

The above thermometers conform to the latest Navy Specifications 18T14.

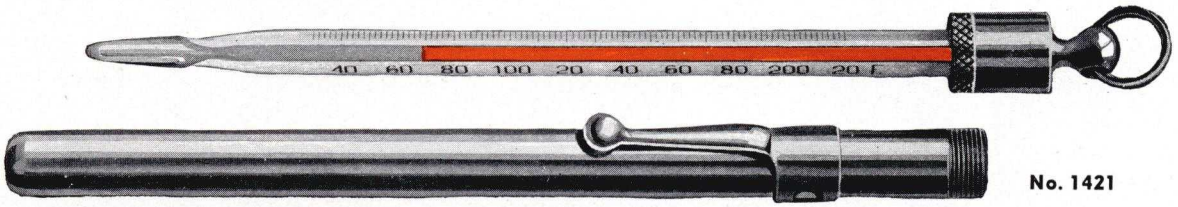
Cat. No.	Form
1151	Straight
1152	Regular angle
1153	Right side angle
1154	Left side angle
1155	Reclined angle

MOELLER POCKET TEST THERMOMETERS

Mercury-Filled With Moeller Glass Red Reading Column

The unusual construction of the Moeller glass with its bright red reading column prevents eye strain and makes it the easiest reading mercury thermometer made.

In a nickel plated brass case, pocket clip and quick demountable cap for easy replacement of broken tube if required.



No. 1421

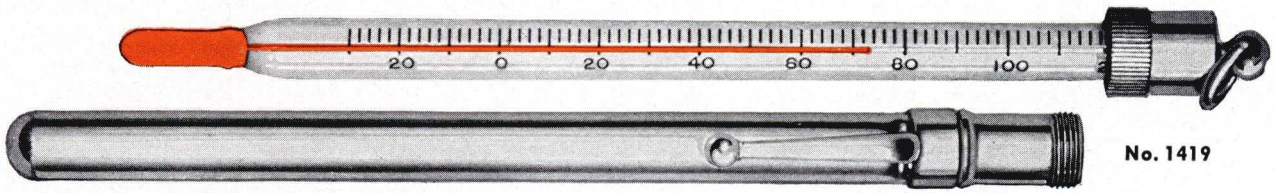
STANDARD GRADE — Lens Front Magnifying Tube

No.	Overall Length	Scale Range	Divisions	Refills Only
1420	6″	Minus 30 to 120° F.	2°	1420R
1421	6″	0 to 220° F.	2°	1421R
1430	6″	Minus 35 to 50° C.	1°	1430R
1411	6″	Minus 15 to 110° C.	1°	1411R
*1410	7″	Minus 30 to 120° F.	1°	1410R
*1412	7″	Plus 20 to 220° F.	2°	1412R

*Nos. 1410 and 1412 furnished in open faced armor screwed into an outside nickel plated pocket carrying case with clip.

RED-LIQUID FILLED ROUND FORM POCKET TEST THERMOMETERS

A clear view, easy reading accurate thermometer, complete with nickel plated pocket case. Especially adapted where visibility is poor. The pocket case has a quick demountable cap enabling easy replacement of broken tubes.



No. 1419

No.	Overall Length	Scale Range	Divisions	Refills Only
1418	6″	0 to 220° F.	2°	1418R
1419	6″	Minus 20 to 120° F.	2°	1419R

HANDLE CASE POCKET TEST THERMOMETERS

Mercury Filled with Moeller Glass Red Reading Column

The thermometer is so made that the case can be screwed into the cap attached to the top of the thermometer, thereby increasing the overall length to 12", as illustrated. This feature prevents the users from burning their hands. When not in use, thermometer can be screwed into the case, reducing its length to 6" overall and conveniently carried in the pocket, besides being protected against breakage.

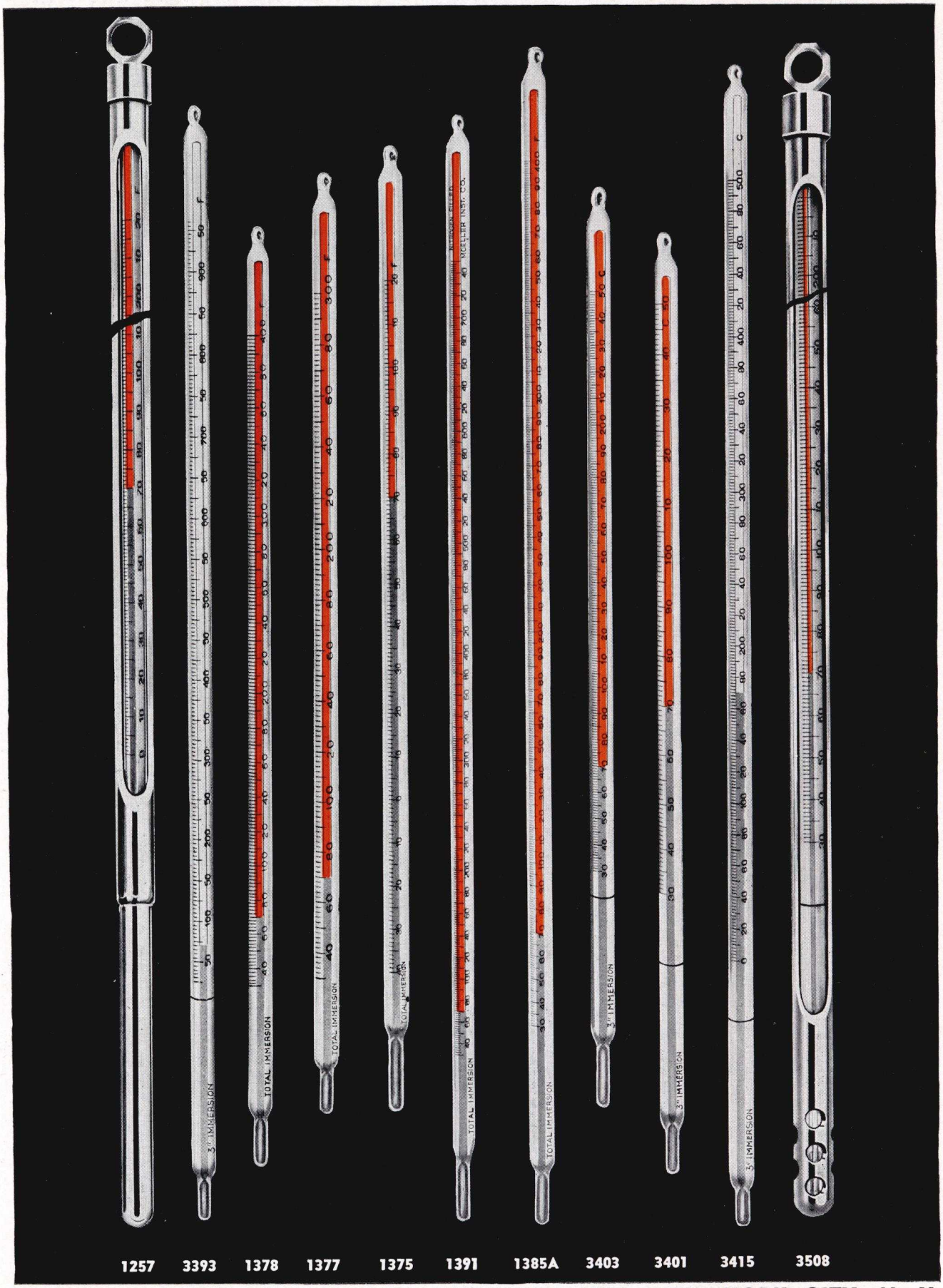
Length Approximately 12" Overall.

No. 1409

No.	Overall Length	Scale Range	Divisions	Refills Only
1409	6″	0 to 220° F.	2°	1409R
1413	6″	Plus 30 to 500° F.	5°	1413R
*1414	6″	Plus 30 to 960° F.	10°	1414R

*1414 does not have the red reading feature.

MOELLER ETCHED STEM THERMOMETERS



MOELLER INSTRUMENT COMPANY, RICHMOND HILL, NEW YORK CITY, N. Y.

No. 3375

MOELLER SOLID GLASS ETCHED STEM THERMOMETERS

Mercury-Filled, Lens Front Magnifying Tube, Moeller Glass Red Reading Column

STANDARD GRADE

RING TOP		Length	Scale Range	Div.
Total *Immersion No.	3 Inch *Immersion No.			
1373	3373	12"	0 to 120° F.	1°
1375	3375	12"	—40 to 120° F.	1°
1376	3376	12"	0 to 220° F.	1°
1377	3377	12"	30 to 300° F.	2°
1377A	3377A	14"	30 to 300° F.	2°
1378	3378	12"	30 to 400° F.	2°
1385	3385	14"	30 to 400° F.	2°
1385A	3385A	16"	30 to 400° F.	2°
1386	3386	14"	30 to 500° F.	2°
1387	3387	12"	30 to 500° F.	2°
1390	3390	16"	30 to 600° F.	2°
1391	3391	16"	30 to 750° F.	2°
	†3393	16"	30 to 960° F.	5°
	†3394	16"	30 to 1125° F.	5°
1400	3400	12"	—10 to 110° C.	1°
1401	3401	12"	0 to 150° C.	1°
1404	3404	12"	0 to 200° C.	1°
1405	3405	14"	0 to 200° C.	1°
1403	3403	12"	0 to 250° C.	1°
1403A	3403A	14"	0 to 250° C.	1°
1406	3406	14"	0 to 300° C.	1°
1407	3407	16"	0 to 300° C.	1°
1408	3408	16"	0 to 400° C.	2°
	†3415	16"	0 to 500° C.	2°
	†3416	16"	0 to 600° C.	2°

NOTE: † Numbers 3393, 3394, 3415 and 3416 do not have the "MOELLER GLASS" RED READING COLUMN, but are furnished in a round form high heat resisting glass.

* CALIBRATION: All instruments are engraved showing the immersion calibrated for and should be immersed accordingly for an accurate reading.

ARMORS. See cuts at right. Thermometers can be furnished with steel or stainless steel armors. See price list. When armors are ordered, the thermometers will have a button top.

PACKED SINGLY. Each thermometer is packed in an individual box.

U. S. BUREAU OF STANDARDS CERTIFICATE can be obtained at extra cost, based upon rates charged by the Bureau.

A complete line of glass thermometers and hydrometers are listed in Catalog No. 80. Copy on request.

No. 1377

MOELLER INSTRUMENT COMPANY, RICHMOND HILL, NEW YORK CITY, N. Y.

MOELLER INDUSTRIAL THERMOMETERS

ALPHABETICAL INDEX

THERMOMETERS	Pages
Air Ducts	10
Air Temperatures	10
Ammonia Lines	4 to 9
Bake Ovens	13
Bakers Proofing Room and Steam Boxes	13
Belt Presses (Rubber)	19
Brewers Thermometers — See Catalog 35	
Brine Lines	4 to 9
Brine Tanks	12
Can Washers	4 to 9, 39
Candy Manufacture	14
Canners "for Retorts," etc.	19
Chocolate Kettles	14
Cold Storage Room	12
Cold Water Lines	4 to 9
Compressors	4 to 9
Condensers	4 to 9
Confectioners	14
Coolers	4 to 9
Corn Cookers	19
Cruller Frying	14
Cylindrical Case	39
Dial Type	21 to 25
Dough Testing	13
Dry Kilns	10, 18
Drying Machines, Ovens and Rooms	18
Dye Tubs	15
Electric Alarm	25, 27
Evaporators	4 to 9
Feed Water Heaters	4 to 9
Fermenting Tanks	4 to 9
Filtering Tanks	4 to 9
Flue Gas	16
Fuel Oil	4 to 9, 39
Galvanizing Baths	18
Glass Lined Tanks — See Separate Catalog	
Glass Test	42-43
Ham Boiling Tanks	14, 15
Handled Top	14
Hard Candy	14
Hot Water Heaters and Tanks	4 to 9
Jam and Jellies	14
Kettles	14, 15
Lead Pots and Baths	18
Linseed Oil Boiling	15
Midget Case	39
Milk Pasteurizers — See Separate Catalog.	

THERMOMETERS	Pages
Oil Coolers	4 to 9
Oil Melting and Boiling Kettles	15
Oil Stills	4 to 9
Outdoor	11
Ovens	10, 13, 18
Pasteurizers, "Beer"	4 to 9
Pea Blanchers	19
Pocket Test	41
Proofing Rooms	13
Recording Type Thermometers	26 to 31
Refrigerating Rooms	12
Retorts	19
Ring Top	14, 24
Rubber Vulcanizers	19
Soft Candy	14
Solder Pots	18
Steam Lines	4 to 9
Stereotyping Pots	18
Stills, Alcohol, etc.	4 to 9
Stills, Oil Refining	4 to 9
Submarine Type	40
Superheaters	4 to 9
Syrup Boiling	14, 15
Thermo Steam Gauges	19
Thermo Vacuum Gauges	16
Tin Case	35
Vacuum Gauge	17
Vacuum Scale	16
Varnish Kettles	15
Vulcanizers	19
Washers (Can and Bottle)	4 to 9, 39
Wet and Dry Bulb	11, 28, 30, 39
MISCELLANEOUS	
Absolute Pressure Gauge	17
Barometers "Mercury"	17
Clinometers	35
Dial Thermometers	21 to 25
Fathom Rules	34
Hydrometers	32-33-36
Hygrometers	11, 30, 39
Marine Specialties	32 to 35
Psychrometers	30, 38
Recording Psychrometers	30
Recording Thermometers	25 to 31
Salinometers	32-33
Sounding Lead Rods	34
Sounding Sheaths	34
Sounding Tubes	34

Planned and Produced by
William A. Battista, N. Y. C.
Printed in U.S.A.

MOELLER INSTRUMENT COMPANY

132nd STREET & 89th AVENUE, RICHMOND HILL, NEW YORK, N. Y., U.S.A.